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Artisan Industries in Asia: Four Case Studies

Sanjay Kathuria, Virginia Miralao, and Rebecca Joseph

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FOREWORD

There is a surprising lack of information about Asia's artisan industries, considering their economic contribution in terms of new employment and foreign exchange. In response to this lack and at the request of governments in the region, IDRC funded a seven-country research network on artisan industries in south and Southeast Asia during 1983-86.

Research teams, comprising economists, anthropologists, and marketing specialists, worked in conjunction with government trade, industry, and rural development agencies to gather data.

Results of this research are presented in two volumes. The first, Artisans in Economic Development: Evidence from Asia, contains survey data from India, Malaysia, Nepal, the Philippines, Sri Lanka, and Thailand. This volume consists of four case studies on workers' welfare and on the international demand conditions that are affecting artisan industries.

An analysis of the data has led to some interesting conclusions. Families involved in craft production are not only above the poverty line, but also have incomes over the national household average. In some countries, household incomes are many times higher. This reflects the strong export demand, but is also the result of multiple sources of family income for rural producers. Despite the higher-than-expected earnings, returns to labour are very low and, partially as a result, an insufficient number of young people are entering the trade.

For this sector to survive, especially in the more developed Southeast Asian countries, government policies must emphasize exports. Wages are higher and benefits are more readily available in factories, which cater to exports. Furthermore, policymakers will find that the returns are good. For example, craft exports have increased four times faster than overall trade. However, these gains must be shared more equitably with producers; this sector may then be able to attract new workers.

Although many people were responsible for data collection, analysis, and report writing, the main credit goes to three individuals who did most of the work and provided intellectual leadership. Dr Rebecca Joseph undertook this assignment while based at Universitas Gadjah Mada in Yogyakarta, Indonesia, as a University of California-San Diego doctoral student in anthropology. Dr Sanjay Kathuria carried out his work in India and Europe while based at the Indian Council for Research on International Economic Relations in New Delhi. Dr Virginia Miralao is Director of Research at the Ramon Magsaysay Award Founda-

tion in Manila and had responsibility for supervising a number of research teams throughout the Philippines.

This book and its companion volume are the first available in Asia, outside of India, on the economic conditions of this industry. It is our hope that this publication will be useful to government and nongovernment planners, other international agencies, and researchers who may wish to use it as a guide for their own work.

Anne Whyte
Director, Social Sciences Division
IDRC

INDIAN CRAFT EXPORTS FOR THE GLOBAL MARKET

by Sanjay Kathuria

This study, which focused on the commercial crafts that are regularly traded in the international marketplace, was conducted at a macro as well as micro level. The former includes analysis of trade data collected from the International Trade Centre. The microlevel study reports interviews with exporters and importers, both in India and abroad. The study examines commerce, barriers to commerce, and price and nonprice factors affecting handicraft products. (See also IDS 1985, which discusses several issues not covered here.)

Role of Handicrafts in the Economy

The economic potential of handicrafts production is demonstrated in the increasing alienation between humans and machines, wherein people are actively seeking to enliven their often dull and stereotyped environment by surrounding themselves with objects of beauty. Evidence of this phenomenon is reflected in an increasing share in world trade of traditional and small-scale cultural goods. For example, Ho and Huddle (1976) found that these goods in international trade have an income elasticity of well over one, and that this high income elasticity is correlated with high labour content. (See also Tuong and Yeats 1980; Kathuria 1985, chapter 2.)

Findings like the above are encouraging for developing countries that are seeking to employ large numbers of skilled and semiskilled craftworkers productively. A significant fraction of this labour force often caters to the export sector, because many of the products are targeted for upper classes (Hirsch 1977). This means that there are dual benefits to the economy in the shape of foreign exchange earnings as well as employment generation. In this paper, the focus will be on export and demand issues.

I will assess the performance of Indian handicrafts on the world market and attempt to draw lessons for policy. I hope that policymakers and researchers from other developing countries will also benefit from this exercise, because many of the problems and concerns are applicable to their situations. In any case, some of the discussion, for example, on world markets and on tariff preference, is of a general nature and is of value to all developing countries.

Although I will not dwell on them here, it should be remembered that there are other, noneconomic, benefits of handicrafts

production. Such production aids in the preservation of traditional skills and cultural heritage, and often creates employment opportunities for disadvantaged social groups.

The Handicrafts Industry in India

Throughout this paper, I shall be concerned only with those handicrafts that have been defined as such for official and administrative purposes in India. Here, handicrafts include gems and jewelry (77% of handicraft exports in 1984/85, 90% of which were cut diamonds); handknotted woolen carpets, rugs, and druggets (9.3% of exports); art metalwares, i.e., brassware, electroplated nickel silverware (4.9%); cotton rugs and dhurries (1.9%); hand-printed textiles and scarves (1.4%); and woodwares (0.7%) (Office of the Development Commissioner for Handicrafts (ODCH), provisional figures). Other minor exports are shawls, embroidered and zari goods, ivory products, imitation jewelry, ceramics, stonework, cane and bamboo, incense, paintings, papier mâché and so on. Handicrafts do not include other traditional industries such as handweaving, khadi, village industries, sericulture, and coir. In fact, it seems that all products included within this definition are of a commercial nature, unlike many products within village industries. However, many of the problems that will be discussed are applicable to other industries as well.

Given the extremely decentralized nature of the industry, exact figures for handicrafts production and employment are very difficult to come by. For similar reasons, one cannot determine the size of the domestic market. Industrial Development Services (IDS 1985), using census reports and export figures, estimated total production in 1983/84 at INR 37,500 million, up from INR 2533 million in 1961 (4.8 Indian rupees (INR) = 1 United States dollar (USD) in 1961; INR 11.4 = USD 1 in 1984). Trade figures, which are far more reliable, show that exports of handicrafts from India rose from USD 40.4 million in 1961/62 to USD 1495.8 million in 1984/85 (ODCH statistical statements), and from 2.4 to 17% as a share of total non-oil exports. Although the net foreign exchange earnings are substantially lower, the sector employs 3.5 million people (in export as well as domestic production); this figure is very impressive when compared to the total organized sector employment of only 24.3 million in 1984/85 (India 1986: 142-143).

Not surprisingly, the export orientation and, hence, the commercialization of many of the crafts has increased over time. For example, IDS (1985) found that over the last 30 years, overall growth has been export-led in gems, jewelry, carpets, art metalware, wood carvings, and embroidery, whereas in basketry and earthernware or pottery, the growth has been substantially induced by domestic demand. It is now well known that exports have become crucial for the survival and growth of many of these crafts.

It is sometimes alleged that handicraft production is a socially wasteful activity because its survival requires state subsidies. However, this does not seem to be true for the commercial crafts considered here. Evidence compiled by Cable et al. (1986) shows, for example, that handicrafts may be among the most efficient foreign exchange earners in the economy.

In recognition of the importance of the handicrafts sector, the government of India set up the All India Handicrafts Board (along with other boards for handlooms, sericulture, coir, khadi and village industries, and modern small-scale industries) in 1952. Its mandate was to study and tackle the problems confronting the development and progress of handicrafts, looking at problems of skill formation, production techniques, and marketing at home and abroad. ODCH is currently the nodal agency for implementation of all central schemes designed to handle the above range of development problems. Some of the important programs undertaken on an extensive scale are training of artisans, design and technical development, and provision of common facility centres and raw materials.

Besides ODCH, a complex network of developmental and marketing activities exists at the state level, including state corporations involved in sales in all parts of the country and sometimes in exports as well. The central government administration in every district of the country also concerns itself with handicrafts development because it is a potential source of livelihood for much of the rural population. At the national level, there are also public-sector institutions, such as the Handlooms and Handicrafts Export Corporation (HHEC) and the Central Cottage Industries Corporation (CCIC), with the former more active in the international market.

According to IDS (1985), however, much more needs to be done to improve the lot of the craftworker. The total plan expenditure on handicrafts from 1951 to 1985 (i.e., over six plan periods) has been less than INR 1400 million, which amounts to less than 0.1% of the overall plan expenditures. From 1961/62 to 1984/85, however, the total contribution from the handicrafts sector was over INR 112,100 million in gross foreign exchange earnings and INR 38,000-45,000 million in net earnings, calculated on the basis of one-third domestic value added for gems and jewelry (G&J) and two-thirds for other crafts. One reason for this state of affairs is that high "glamour" projects always attract a disproportionate share of government funds. Moreover, given the nature of state intervention, import-substitution sectors (which often include the glamour projects) have always been more in favour than exporting and nonimport-substituting sectors.

The World Market and Developing Country Exporters

The size of the world market for handicrafts is as difficult to estimate as the value of handicrafts production. Standard International Trade Classification (SITC) statistics do not distinguish between handmade and machinemade items, goods being classified by type of material used (e.g., glass, steel, cotton). Nevertheless, by examining these statistics in their most disaggregated form, the size of the world market evaluated at cost, insurance, and freight (cif) prices can be roughly estimated (Table 1). At the individual country level (Table 2), it is possible to disaggregate further, but the above problem is still not solved.

I have included products that are likely to contain a large share of handicrafts, e.g., inlaid wood marquetry, embroidery, basket work, handknotted carpets (a classification that does distinguish handmade products). The final list comprises 71 product categories (Appendix 1). In making the selection, I tried to correspond, as far as

Table 1. Total imports of 23 market economies of 71 handicraft products.

Source	Total		Less gems and precious jewelry	
	1980	1984	1980	1984
World (USD billion, cif)	38.88	40.68	28.13	29.85
All developing countries[a] (USD billion, cif)	10.54	14.48	8.35	11.46
Developing countries' share (%)	27.10	35.60	29.70	38.40

[a] Including socialist countries.

Source: Compiled from UNSO/ITC Comtrade Data Base System, Main Series, 1980-84.

possible, to the list of handicraft items chosen by ODCH from the Revised Indian Trade Classifications (RITC).

The data used in this chapter are for imports of 23 major countries (Appendix 2). Because they represent most of the Organisation for Economic Cooperation and Development (OECD) countries (which dominate world imports even more in "rich man's" goods such as handicrafts than they do overall manufactured good imports), we will treat the total imports of these countries as a first approximation to world trade (cif prices). If we do this, we find that USD 40.7 billion cif (see Table 1) would mean retail sales of handicrafts in 1984 of around USD 80-160 billion. This seems an overestimate, and is probably the result of our use of figures that include both machinemade and handmade output. Even if G&J is not included, retail sales of around USD 60-80 billion would be implied by the 1984 cif value of USD 29.9 billion. Perhaps one could say that these figures represent a potential market.

However, the current market for handicrafts would probably be approximated far more closely if we consider only the total imports of developing countries, because it is only here that the products in question are more likely to be produced by hand. This procedure implies a retail market, in 1984, of about USD 22-30 billion (on a cif figure of USD 11.5 billion, excluding G&J). The developing-country share of the total market defined as handicrafts increased substantially between 1980 and 1984 (37% without G&J). At the same time, world exports of these products grew only 6%, whereas total world trade in manufactured products increased 4.8% (GATT 1985:201).

Owing to the high cost of raw materials, gems and precious jewelry form a major segment of total trade in handicrafts. Without these products, developing countries' share of trade is higher: 29.7% for 1980 and 38.4% for 1984 (Table 1). Within the developing world, the largest exporters are from the south and east Asian countries: Hong Kong, Taiwan, China, India, and South Korea (Table 2).

Table 2. Exports of 71 handicraft products of selected developing countries to 23 market economies.

	Value (USD million, cif)		Percent change 1980-1984	Share of world trade (%)		Value without G&J (USD million, cif)		Percent change 1980-1984	Share of world trade (%)	
	1980	1984		1980	1984	1980	1984		1980	1984
Hong Kong	1975.1	2531.9	28.2	5.1	6.2	1577.3	2070.4	31.3	5.6	6.9
Taiwan	1620.8	3039.9	87.6	4.2	7.5	1603.4	3012.5	87.9	5.7	10.1
China	1108.8	1589.3	43.3	2.8	3.9	1020.6	1508.7	47.8	3.6	5.0
India	1083.1	1537.3	41.9	2.8	3.8	427.5	457.2	6.9	1.5	1.5
South Korea	786.6	1258.6	60.0	2.0	3.1	767.2	1237.6	61.3	2.7	4.2
Thailand	406.5	479.3	17.9	1.0	1.2	100.9	148.7	47.3	0.4	0.5
Philippines	281.8	323.8	13.8	0.7	0.8	279.8	315.8	12.9	1.0	1.1
Mexico	270.3	425.9	57.5	0.7	1.0	258.4	416.5	61.2	0.0	1.4
Pakistan	241.1	157.3	-34.8	0.6	0.4	237.0	152.6	-35.6	0.8	0.5
Singapore	199.4	346.5	73.8	0.5	0.8	127.2	157.4	23.7	0.4	0.5
Brazil	132.9	205.7	54.8	0.3	0.5	53.6	83.1	55.1	0.2	0.3
Malaysia	87.9	113.0	28.6	0.2	0.3	75.6	89.3	18.2	0.3	0.3
Sri Lanka	58.4	43.8	-25.0	0.2	0.1	6.9	9.8	41.4	0.0	0.0
Macau	36.4	194.3	433.4	0.1	0.5	36.0	193.0	435.7	0.1	0.6
Indonesia	31.1	42.1	35.4	0.1	0.1	26.1	32.1	23.0	0.1	0.1
Nepal	9.8	29.3	198.5	0.0	0.1	9.7	29.2	200.5	0.0	0.1
Bangladesh	2.5	3.1	22.9	0.0	0.0	2.5	3.1	22.9	0.0	0.0

Source: Compiled from UNSO/ITC Comtrade Data Base System, main series 1980-84.

India's share, as well as growth, in world trade falls considerably when G&J is excluded from the total. In fact, the growth between 1980 and 1984 is only 7%, far lower than most of the other exporting countries, including all the major ones: China's growth is 48%, Hong Kong's 31%, Taiwan's 88%, South Korea's 61%, and Mexico's 61%. However, the most striking progress is shown by Macau, with a growth of 436% and an increase in share of trade from 0.1 to 0.6%.

As far as individual products are concerned, India faces competition from a variety of sources. In cut diamonds, Belgium and Israel are big exporters. In handknotted carpets, India is currently the world's largest exporter, but is facing keen competition from China (Kathuria and Taneja 1986), Iran, and Pakistan. Morocco and Turkey have also emerged as significant exporters. In brass and copper items, Hong Kong and Korea have caught up with, and Taiwan has overtaken, India in a product line in which India had a major head start. For further details of these and other handicrafts in the major markets of the world, see Kathuria (1985).

Obviously, a better method of compiling international trade statistics for handicrafts needs to be devised to eliminate the weaknesses we have noted. RITC has made a genuine attempt to distinguish between handmade and other goods, and could be a useful reference point. One organization that could contribute to a reclassification is the International Trade Centre (ITC) in Geneva. It could perhaps serve as the coordinating body for this purpose. Another possibility is to set up an International Handicrafts Organization to sort out the statistical issue, and also monitor, regulate, and promote international trade in handicraft products.

Barriers and Preferential Arrangements in International Trade

Definition of Handicrafts and Scope of Preferential Schemes

Most OECD countries have schemes (either under the Generalised System of Preferences (GSP) or under special handicraft provisions) that accord preferential treatment to handicrafts. One problem here is that the definition of handicrafts varies across countries (UNCTAD 1979). Among the most restrictive definitions are those employed by Canada and Australia. They require that raw materials used should not be machinemade, nontraditional, or "modern"; electric power can only be used under very restrictive conditions; and the products must also possess some characteristics of the country or region of manufacture. In Austria, the major part of the product is required to be handmade. No specific definition is applied in the European Economic Community (EEC).

Thus, the two main problems are the variations in definition (when placed alongside complex certification requirements confuse and bewilder exporters from developing countries, and create uncertainty for importers) and, even more importantly, the restrictiveness of the definitions. Surely, in this day and age, one should not grudge artisans some mechanical aids to reduce the drudgery of their labours? "Is it possible to persuade [importing countries] that handicrafts should not only be viewed narrowly in terms of artisans' skills and absence of modern equipment; they can also be viewed in the modern context of sophisticated skilled workers, aided by modern

equipment, materials, dyes and paints, etc. So long as there is a basic, creative, personalised skill, some modernisation should be accepted as a natural development and not negatively" (Prakash Tandon, personal communication).

That people have been aware of these issues for some time now is not in doubt. In 1969, an UNCTAD report of the Inter-Governmental Group of Experts on Tariff Reclassification adopted the following provisional definition of handmade handicraft goods.

> The term handmade articles should be taken to cover those produced with or without the use of tools, simple instruments or implements operated directly by the craftsman mainly by hand or by foot. Within the group of handmade goods, some, such as handicraft products, often have additional identifying features such as:
>
> (a) traditional or artistic features deriving from the geographical region or country of production;
>
> (b) production by craftsmen, working generally on a cottage industry basis.
>
> Some goods may be produced partly by machine and partly by hand (for example, a dress made up by hand of machine-made cloth, perhaps with additional hand embroidery or other decoration). The group considered that in such cases a product should be regarded as handmade or handicraft if the essential character of the product in its finished form is derived from the handmade aspect of its production.

In spite of these efforts, a definition that is universally acceptable has still not been found. Perhaps a more useful approach would be for developing countries to try for "enlightened" legislation in a single market, such as the EEC or USA. Not only would the issue of a workable definition have to be resolved, but ways and means would have to be agreed upon to identify the extent of value added by hand. This could then be used in negotiations with other countries.

The geographical coverage of the existing schemes also varies from country to country (UNCTAD 1979). In Australia, handicrafts from all countries are given preferential treatment; in Austria, 30 countries are included, but others can apply; in the EEC, 20 countries are under its handicrafts scheme, but most developing countries are under its General System of Preference (GSP) scheme; in the USA, all GSP beneficiaries are included. Countries also vary widely with respect to the products covered.

Extent of Import Barriers

Tariff and nontariff barriers are not a major issue in the export of handicrafts from developing countries, as we shall see. There are exceptions, however, particularly among textiles and leather products, many of which do not fall within the definition of handicrafts as used in this study. Later, I will briefly mention the problems faced by handlooms in the international market, because these are of interest to a large number of developing countries.

As far as handicrafts (our usage) are concerned, there are some restrictions for textile-based handicrafts, e.g., floor coverings (Table 3). The barriers in floor coverings are important from the Indian viewpoint because India exports large volumes of carpets - USD 167 million in 1984/85 (ODCH provisional figures) - and has, according to our calculations, emerged as the largest exporter of handknotted carpets in 1983 (Kathuria 1985, chapter 3), in an industry that employs more than 300,000 people (IDS 1985). These tariffs are obviously levied because the domestic industries producing machinemade floor coverings feel threatened by the imports.

Yet, according to importers, there is no substitution between machinemade and handmade floor coverings. It is only the Belgian industry that produces copies of oriental carpets. But even high-quality copies are much cheaper than low-quality genuine orientals (Weston et al. 1980: 189). Although there may not be substitution, there is a rising trend in share of expenditures on oriental carpets - for example, in Germany, the world's largest market, the import of oriental carpets as a percentage of total expenditure on floor covering rose from 13.7% in 1975 to 23% in 1979 (ITC 1981d:27) - and this argument is undoubtedly used to press claims for protection. We have indicated, however, that the two kinds of carpets are not substitutes (and, in fact, are often complements). What seems to have happened, therefore, as pointed out by ITC (ITC 1983b:18), is that oriental carpets have created a demand in new markets and among wider consumer categories in traditional markets rather than encroaching upon the machinemade-carpet market. In other words (in Germany, the U.K., and others) the market for oriental carpets has grown faster than, but not at the expense of, that for machinemade carpets.

Notwithstanding these arguments, all attempts to include handknotted woolen carpets in the U.S. GSP scheme have failed, in spite of many representations by producing countries, including India. Not only this, but the domestic carpet manufacturing lobby had all but succeeded in setting quotas on imports. The only kind of handknotted carpets that are given GSP treatment (which implies duty-free entry into the USA) are those where over 50% pile weight is hair of alpaca, guanaco, huarizo, llama, misti, suri, or any

Table 3. Tariff barriers for floor coverings in two major markets, EEC and USA.

Market	Product	Tariff
USA (1983)	Wool floor coverings, pile, hand inserted	5.1%
	Floor coverings, woven, not power-driven loom	8%
EEC (1980)	Handknotted woolen carpets	24% with maximum of 4 ECU[a]/m^2

[a]ECU = European currency unit.

combination of these (USA 1983). However, 95% of world trade is in woolen handknotted carpets. Woven floor coverings must be certified "handloomed and folklore" to qualify for GSP. For all practical purposes, therefore, most carpets and dhurries imported into the USA have to pay duty.

As far as EEC is concerned, numerous problems exist in its policy on handknotted carpet imports (Weston et al. 1980). Woolen carpets below 500 knots/m of warp are "sensitive," those above 500 knots/m are "semisensitive," and nonwoolen ones are nonsensitive. In practice, only woolen carpets with less than 500 knots/m have to pay the Most Favoured Nation (MFN) duty (paid by GATT members not receiving preferential treatment) of 24% (maximum 4 ECU/m^2) once the duty-free GSP quota is exhausted. This distinction, according to them, is arbitrary because the number of knots does not reflect the quality of a carpet. We only partly agree with this, however, because density of knottage is one of the criteria used to determine quality (Kathuria 1985, chapter 3). The positive relationship in the EEC import statistics between knot density and unit value confirms this. Another criticism made by Weston et al. (1980) is that the GSP tariff quota is too small, and covers a decreasing proportion of EEC imports (23.4% in 1978). Even the average tariff preference margin is quite low. Finally, quotas seem unfairly divided among the EEC member states, with Germany getting less than its demand and the U.K. getting more.

For nontextile handicrafts, the MFN tariff duties are generally lower. By using the GSP or special handicrafts provisions, developing countries are able to further reduce or eliminate the duties that they pay. In the USA, almost all nontextile handicrafts from beneficiary countries are eligible for duty-free entry under the GSP. In the EEC, all manufactured products from developing countries, textile as well as nontextile, can enter duty-free under the GSP, although there are upper limits on this, especially for textile products.

Other nontariff barriers seem to be irritants rather than barriers, e.g., fumigation regulations and heat treatment for certain plant-based materials (bamboo, cane, wood, cereal straw, flowers) in Australia and the USA, and health regulations for household articles and toys.

Efficacy of Preferential Arrangements

United States

One way to assess the efficacy of GSP is to look at time-series data both before and after the introduction of the scheme, and see whether there has been any significant change in the share of recipient countries in total imports. The only time-series data available were for the USA, 1970 to 1983, for a selected list of products: brass household and sanitary wares not coated with precious metal; articles of copper, nonplated, not elsewhere specified; household utensils of wood; and wood carving.

I tested for the impact of GSP on the share of the largest developing country exporters in total U.S. imports in each of the three products. A dummy variable was employed to capture the GSP effect. The other independent variable was real private consumption expenditure. Although the GSP dummy is of a positive sign, it is statistically insignificant. On the other hand, consumption

Conclusion

What, then, is the benefit of the duty-free quotas? They do not seem to significantly affect the trade. Given the uncertainty inherent in a quota system, which sometimes lasts for only a short while, traders tend to treat duty-free allowances as windfall gains (Cable et al. 1986, chapter 6). This particular problem could be addressed by working out an average tariff for each product implied by the quota system, and replacing the quota with this tariff equivalent. Although the average tariff would be the same under both systems, the tariff-based system would fulfill the objective of promoting developing countries' exports, because the preference margins would not be treated as windfall gains. Ideally, of course, the GSP quotas (which apply mainly to textile-based handicrafts) should be abolished because developing countries' handicrafts compete mostly with each other rather than with the EEC's. Thus, duty-free entry would mainly increase demand for developing-country products, but not at the expense of EEC producers.

However, because of the limited effectiveness of GSP schemes (in both the USA and EEC) in promoting developing-country handicrafts, quota abolition will, by itself, not help very much. For similar reasons, abolition of the remaining duties on textile-based handicrafts in the EEC and USA may not significantly increase the exports of these products.

More active promotional measures will therefore be needed, whether developed countries eliminate import barriers for handicrafts or not. The developed world should be persuaded by an effective developing-country lobby to participate in these schemes provided they could be convinced that many developing-country handicrafts are not substitutable for developed-country products. On their part, developing countries should undertake joint promotion of their products in target markets and seek cooperation of the importing countries in this exercise.

Import Regulations for the Handloom Industry

Much of this discussion is borrowed from Cable et al. (1986, chapter 6); our focus here is on India. The Indian handloom industry is the largest of the traditional industries in terms of employment generated (estimated at 7.5 million in 1984/85 for the Seventh Five Year Plan). Exports were valued at USD 307 million. It is unfortunate, therefore, that handloom products (mainly garments) have been increasingly subject to quota restrictions in recent times.

World trade in textiles is regulated by bilateral agreements between exporting and importing nations under the overall framework of the Multi Fibre Arrangement (MFA). In 1974, under the first MFA, cottage-industry handloom fabrics and handmade products of handloom fabrics, as well as traditional folklore handicraft textile products, were exempted from such restrictions, provided that they were properly certified. Problems have since arisen because of an unforeseen increase in imports of handloomed products, and also the issue of unsatisfactory certification by the Indian authorities (so that powerloom cloth was often passed off as handloomed, owing partly to difficulty in identification but also to indifference on the part of the inspection authorities).

Thus, in India's two biggest markets, the EEC and the USA, the 1983-86 Textile Agreements placed quotas on a variety of handloomed garments - the former on 10 of India's most successful exports (including women's blouses, skirts, dresses, shirts, trousers), and the latter on the entire range of garments (USDS 1983). Handwoven fabrics and "made-ups" from India continued to receive exemption from the quotas because they did not threaten to "disrupt" the domestic industries of the importing economies. On the other hand, restrictions were placed on garments because they were more successful.

Over and above all this, most textiles, made-ups, and garments are subject to duties. The rates of duty increase with the degree of processing. However, the duties do not matter where the quotas are binding.

This summary of the problems of handloomed quotas does not do justice to the complex issues involved. The industry offers employment millions of underprivileged and deprived people all over the developing world. At the same time, the existence of the handloom sector is being questioned in many countries, including India (Jain 1983), partly owing to competition from the organized sector. In such a situation, quota restrictions are hardly appropriate on imports of handloomed goods in markets where a demand exists for them. This is a politically sensitive issue, and urgent attention is needed to resolve the problems.

Countries are clearly more sensitive to imports in sectors where there is substantial domestic production capacity, which explains the barriers on handloom textiles and garments, textile-based handicrafts such as carpets, and different types of leather goods. Developing countries have been able to produce and export enough quantities of these products to arouse opposition from manufacturing interests in the importing countries. The handmade nature of the products, the consequent employment generation, and the noncompetitive aspect of handicrafts need to be emphasized.

Transport Costs

Transport costs have been singled out from all the components of cif price because they can be determined more accurately than any other element of price, and compared with freight rates of competing countries. Other things being equal, freight rates will be the determinant of relative demand between exporting countries.

Transport costs influence demand as illustrated for the exports of major developing countries to the USA in handknotted carpets (Table 4), and brass and copper products (Tables 5 and 6).

Of all the major exporters to the USA, India's freight-value ratio is the highest, partly because its unit value is also the lowest, and because freight rates are levied by volume of carpets, the ad valorem transport cost becomes very high. The low unit value is a result of the low-to-medium quality of Indian carpets.

The freight cost per square foot, however, is unaccountably high - almost twice that of India's most signficant competitor in the USA, China. In 1975, the freight cost for India was USD 0.31/ft^2; for

Table 4. Transport costs for handknotted carpets[a], 1983.

	Quantity (1000 ft^2)	Value (USD 1000 fob)	Unit value (USD/ft^2)	Freight cost (USD 1000)	Freight as % of value	Freight cost (USD) per ft^2
India	7493	35233	4.7	3279	9.3	0.438
China	6477	47370	7.3	1496	3.2	0.231
Pakistan	2717	24429	9.0	1448	5.9	0.533
Iran	867	17626	20.3	481	2.7	0.555
Turkey	625	5467	8.8	310	5.7	0.496
Total[b]	19881	140496	7.1	7630	5.4	0.384

[a] Over USD 0.67/ft^2 (1 ft^2 = 0.093 m^2).
[b] Totals exceed column totals by the amount of imports from other countries.
Source: U.S. Department of Commerce, Imports for consumption, FT246.

Table 5. Transport costs for copper articles.

	Quantity (1000 lb)	Value (USD 1000 fob)	Unit value (USD/lb)	Freight cost (USD 1000)	Freight as % of value	Freight cost (USD) per lb
1977						
Taiwan	1200	2112	1.76	182	8.6	0.15
Korea	161	440	2.73	49	11.1	0.30
India	354	596	1.68	110	18.5	0.31
1983						
Taiwan	14539	31570	2.17	2331	7.4	0.16
Korea	3603	10305	2.86	815	7.9	0.23
India	1417	3976	2.81	728	18.3	0.51

[a] 1 lb = 0.454 kg.
Source: U.S. Department of Commerce, Imports for consumption, FT246.

China, it was USD 0.24/ft^2. The differential has thus widened over the years concurrent with an increase in China's exports relative to India. From a modest start (USD 0.8 million in 1975 compared to USD 12 million for India) (ITC 1981d), China now dominates the U.S. market. China's transport costs are low because goods are often transshipped from Hong Kong (ITC 1981e:53), an important world trading centre. India's high freight rate is disturbing because the U.S. is a potentially large market. Germany is currently the world's largest market, but the USA is second, with potential to be the largest (Rug News 1985:16), and cannot be ignored.

Table 6. Transport costs for brass household and sanitary wares.

	1975			1983		
	Value (USD 1000 fob)	Freight (USD 1000)	Freight as % of value	Value (USD 1000 fob)	Freight (USD 1000)	Freight as % of value
Taiwan	1621	196	12.1	39155	3397	8.7
India	2420	397	16.4	23135	3809	16.5
Korea	607	54	8.9	6862	558	8.1
Total	16966	1831	10.8	93444	9906	10.6

Source: U.S. Department of Commerce, Imports for consumption, FT246.

From the importer's viewpoint, the ad valorem freight incidence is more pertinent for profitability calculations. But this brings in the question of unit values: India cannot, at least in the short term, influence demand patterns nor change its comparative advantage in low and medium quality carpets. It can, however, take immediate action to bring the freight-quantity ratio into line with China's, perhaps by giving a freight subsidy on carpets exported to North America. Indian shipments to the U.S. generally take 2-3 weeks longer than do China's, implying that the real cost differential to the importer is even higher than the figures demonstrate.

Comparison cannot be made with the other two major suppliers, Pakistan and Iran: Pakistan air-freights most of its carpets at a specially subsidized rate; Iranian carpets are too highly priced for freight to influence cost. In any case, China is emerging as India's main competitor.

Between 1977 and 1983, Indian exports of copper articles rose from USD 0.6 million to USD 4 million (Table 5). The unit value also rose from 1.7 to 2.8 USD/lb (1 lb = 0.454 kg). However, in spite of this increase in unit value, the ad valorem freight incidence remained the same, at approximately 18%, and the freight-quantity ratio rose from 0.31 to 0.51 USD/lb. This meant a sizable increase in the freight-quantity ratio differential between India and Korea and Taiwan, with a similar but smaller increase in the ad valorem freight differential. Partly as a result of this, Korea's and Taiwan's exports during this period increased at a simple annual rate of 374 and 232% respectively, compared to 110% for India.

Policy action must consider that, in spite of a favourable unit value, India's freight incidence is more than twice that of Korea and Taiwan, whether looked at in value or quantity terms.

In the brassware category, figures for quantity are not available. India's exports of brassware to the U.S. in 1975 were USD 2.4 million and Taiwan's were USD 1.6 million (Table 6). In 1983, India's figure was USD 23 million, but Taiwan's had shot up to USD 39 million. During this period, the ad valorem freight differen-

tial widened from 4.3 to nearly 8 percentage points. This was reflected in the growth rates of 290% for Taiwan and 107% for India. Again, ad valorem freight rates for India are approximately double those of its strongest competitors. If we assume some similarity in the weight-to-value structure of copper and brassware, the freight-quantity ratio differentials in brassware must also have widened over time.

In brassware, Taiwan's 28% cost decline was accompanied by a growth rate of 290%. Similarly, in copper, Taiwan had a cost decline of 29% and a growth rate of 374%. In both products, India's growth was slowest and its decline in transport costs was also lowest (Table 7).

I also briefly examined the wooden handicrafts sector, in which India has a small share of the U.S. market. The largest supplier in all-wood products is Taiwan. In all three of the products chosen (utensils of wood, articles of wood, and wooden furniture), India's ad valorem freight rate is the highest of all suppliers, although it declines over time. In wooden furniture, the high differential between India and her competitors prevents any major growth in this sector. Also, for India, the ad valorem freight rates are higher in wooden products than for either brassware or carpets.

Strictly speaking, the influence of transport costs could be judged only if all other influences on demand were constant. However, if close competition exists on other price and nonprice fronts, transport cost diffferentials could tilt the scales one way or the other. Many importers with whom we discussed India's handicrafts felt that India's high freight rate negated its price advantage in brassware over Korea and Taiwan.

Implications

Transport costs are only one of many factors influencing price and, therefore, demand for exports. Because these costs can be easily identified and compared internationally (as I have done), a case can be made for government intervention to equalize transport costs. Comparing the incidence of indirect taxes internationally is more difficult. Hence, exporters' demands for refund of indirect taxes are often not met.

Table 7. Correlation between decline in freight costs and growth rate.

	Brass 1975-83		Copper 1977-83	
	Decline in ad valorem freight rate (%)	Average annual growth rate (%)	Decline in ad valorem freight rate (%)	Average annual growth rate (%)
Taiwan	28	290	14	232
Korea	9	129	29	374
India	-0.6	107	1	110

In India, for example, the exporting community continually exhorts the government to increase export subsidies (cash compensatory support) because hidden costs and indirect taxes impose unbearable burdens on them. Instead, I suggest that they ask for a full or partial subsidy of freight rate differentials between India and major competitors. Freight rates out of Hong Kong could be used as a benchmark.

Generally, the countries of the Far East have cheaper freight costs to the U.S. than India because of the Pacific route and the huge volume of trading activity. In recent years, China, Hong Kong, Korea, Taiwan, and others have emerged as strong competitors for India in key manufactured exports. The Far East has an obvious advantage in access to North America but not in access to the EEC market. This should be further investigated.

No product should be allowed to lose its competitive edge because of transport cost disadvantages. Guidelines suggested for India can be applicable to all exporting countries.

The Trading Network

Bringing handicrafts from the primary producer to the consumer in another country (usually in the developed world) involves many organizations and people (Fig. 1). Master weavers/master craftworkers organize and supervise household production units. Merchant-exporters (or simply exporters) have a licence to export but, unlike a manufacturer-exporter, do no production themselves. Agents are

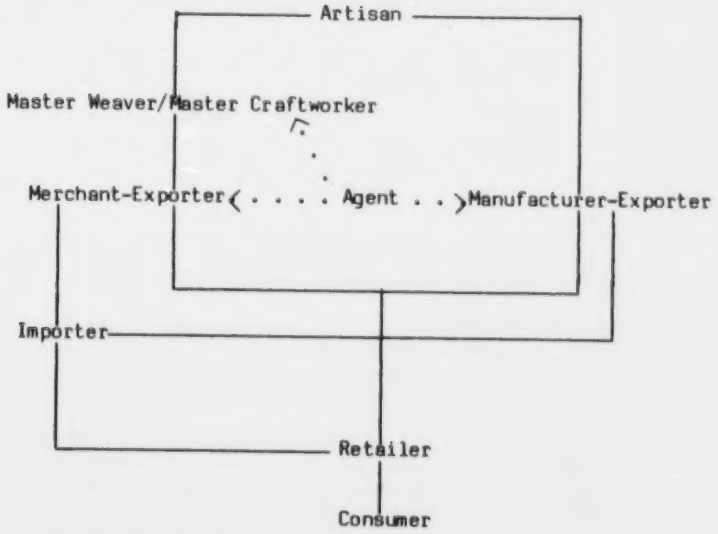

Fig. 1. Institutional network between the artisan and the consumer.

appointed by importers to coordinate and look after their interests. Importers wholesale to retailers. Retailers can buy products for retail sale from an importer or can buy directly from exporters.

I interviewed 34 exporters, manufacturer-exporters, and agents in Bombay, Delhi, and Moradabad, and received 15 written responses to questionnaires from all over India. I also interviewed 45 importing firms (both retailers and importers), including those identified by exporters, in some of the major markets for India. Although some G&J exporters in Bombay were interviewed, the main focus here is problems with carpets and other handicrafts.

Important Issues for Trade

Intermediaries perform useful economic functions. Retailers would find it very difficult to buy in India were it not for the coordination functions that merchant-exporters and agents undertake on their behalf. Because merchant-exporters, buying agents, and importers charge a commission, the final retail price may be higher than if the retailer was buying directly from a manufacturer-exporter. However, retailers often "respect the going market price." On the domestic front, the manufacturer-exporter can sometimes provide a lower price than an agent or merchant-exporter, but again, this is not always the case.

The most successful firms were those that had substantial investments in design and development activity.

Trade stands a better chance of growing if exporters and importers are committed to product lines and to suppliers and buyers. The commitment would vary according to whether the traders were interested in immediate, short-term profits or in longer-term gains.

Control of quality and delivery schedules is very important and is the main function of, for example, the agents appointed by importing firms.

Given India's poor image as an exporter, promotional activity, such as personal contact (Khanna 1985), advertising, promotion campaigns, and so on, must be undertaken.

Overview of Participating Institutions

Importers

Importers specialize in only a few product lines, with which they are thoroughly familiar. Competition is intense and they survive by good purchasing (and not selling). They cater to all retailers, but are most successful with small retailers (boutiques, specialty stores) and in supplying complex products that require investment in design and development. They spend a great deal of time in their supplying countries and develop the skills of the firms with which they work. They normally pioneer the development of new lines, and thus incur high risks, particularly if their product does not sell. In our interviews, only five importing firms impressed us with their commitment to the development of the product. Of these, four were importers, and one was a retailer.

Because importers are committed to a product line, they order large quantities and carry stock. They dominate in the import of handicrafts (including carpets) in all developed countries (ITC 1976, 1977a-c, 1979, 1980a-c, 1981a-c, 1983a). Importers' markups can vary from 30% to more than 100% of their cost, and are especially high at the beginning of a trade cycle when they introduce a new product. As trade expands, retailers also enter into direct buying and this lowers importers' margins.

On the negative side, importers offer lower prices to exporters than retailers do, and this often tempts exporters to sell directly to retailers. Also, because direct buying by retailers eliminates the importer, a lower retail price and, hence, increased demand sometimes results.

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Retailers

Retailers include boutique or fashion stores, department stores, chain stores, discount stores, and mail-order houses. Boutiques are usually too small to engage in direct buying, which is normally confined to large chain stores or to a conglomerate of department and chain stores. Where the volume of buying is large, these retailers (e.g., Associated Merchandising Corporation, Macy's, May Company) have set up permanent buying offices in the supplying countries.

Although retailers cannot have as deep a knowledge of a product as an importer, a few retailers have invested in design and development and borne full risks. Large chain stores may even order the same quantity as importers, but even the "biggest department stores tend to be smaller buyers of the most specific lines of merchandise than their overall size might at first suggest" (Keesing 1982). Quality-conscious retailers who spend more than a week with their supplier are regarded as highly desirable customers by firms in

developing countries. Also, when products are standardized and form a regular part of a retailer's wares, the retailer can supplant the importer, thus benefiting the exporter who would then get a higher price. Standard lines in handicrafts are few, however, because, except for carpets, they are sold in gift departments where new items are constantly being introduced.

Local Buying Agents

Retailers most frequently use agents, whereas importers normally prefer to deal directly with exporters. The agent coordinates production of small groups of manufacturers, brings them into contact with retailers, and is responsible for the quality and delivery of the merchandise. The agent deals with a wide range of relatively simple products and does not have an intensive knowledge of any of them. The commission charged varies between 2 and 5%.

Merchant-Exporters

Merchant-exporters are agents that can also export. Because they handle a range of handicrafts, they do not specialize. Large merchant-exporters can bargain with importers and retailers on equal terms, thus getting a better price and, therefore, higher foreign exchange earnings. They can also exploit economies of scale in marketing.

Large merchant-exporters such as trading houses are not interested in developing and promoting handicrafts, which are low-volume, highly specialized items. At least two trading houses, however, are interested in large-volume products such as handknotted carpets. Nonetheless, most merchant-exporters are not large: the limited export business in metalware is shared by about 1000 exporters (of which 500 are merchant-exporters) (IDS 1983), and in carpets by 1270 exporters (of which 578 are merchant-exporters) (Carpet Export Promotion Council figures).

Manufacturer-Exporters

Many exporters call themselves manufacturers because they do a "little bit of polishing" and coordinate manufacturing activity. Here, we are discussing those who contribute a substantial amount to value added, even though it is in the latter half of the production chain. The possible advantages of manufacturer-exporters over merchant-exporters are: a stronger commitment to, and knowledge of, their products; a stronger commitment toward the work force in ensuring employment (even if only on a contract basis); better production controls on quality, delivery schedules, and designs (i.e., ensuring copyright); and inspiring more confidence in a potential importer because of this greater commitment and higher level of sunk costs (which the importer, however, could use as a bargaining lever against them). Nevertheless, a larger merchant-exporter would have the advantage over a manufacturer-exporter in bargaining power and scale economies in marketing.

In practice, manufacturers who undertake most production in their own units are difficult to distinguish from "manufacturers" who subcontract a large part of production to others. Also, the former are unable to deliver large volumes of output because they are constrained by their production capacity. Thus, when they receive larger orders,

genuine manufacturer-exporters will also have to subcontract to other manufacturers if they are to deliver on time.

Only a large manufacturer-exporter, i.e., operating factory-type production, can deliver the goods (on time and of the requisite quality) when substantial volumes are demanded by importers or large retail chains. In spite of the growing commmercialization of export production, full-scale factory production is not widespread, even in highly export-oriented production centres such as Moradabad (brass) and Bhadohi (carpets). And yet, of all the crafts, handknotted carpets has the largest share (20%) of factory production.

Factory production has not developed in Indian crafts because labour legislation makes employee costs too high. Employers cannot easily dismiss labour when demand is slack and, under the Factories Act, they must pay bonuses and contribute toward employees' welfare and insurance schemes. Also, organized labour is more susceptible to political involvement in unions.

Policymakers should make note of the distinction between mass-market handicrafts and more expensive (and more ethnic) crafts. This report discusses the advantages of the factory-type system for speedy, bulk production but, for artistic and skill-intensive crafts, household production offers more scope for creative inputs.

Public Sector

A public sector institution could play a unique role in trade development. The most prominent in India is the Handicrafts and Handloom Export Corporation (HHEC), upon which we will focus our discussion. HHEC has a special design cell (unlike most other exporters) and has showrooms and retail outlets abroad from which it can get consumer feedback and from which buyers can communicate easily. It has bargaining strength, is committed to the supplier and product (in that it is bound to remain in the business), and has warehousing facilities abroad where it can keep inventories. It also offers products from all over India.

HHEC's major products are gold jewelry, handloom products, handknotted carpets, ready-to-wear clothing, and handicrafts. HHEC helped pioneer the development of Persian-design carpets, in which India is now the world leader. Since its initial success, which began with setting up a warehouse in Hamburg in 1965, however, the overall performance of HHEC in carpets has declined, and no fresh initiatives in this sector have been taken.

In handloom products, too, HHEC has enjoyed some measure of success; total exports were USD 7.8 million in 1982/83. In gold jewelry, exports credited to HHEC have increased spectacularly from USD 5.1 million in 1980/81 to USD 60.9 million in 1982/83 (HHEC, statistical statements). However, exporters were obliged to import and export gold via the HHEC according to the Bombay traders interviewed.

Given this preoccupation with handloom products (which are easy to design and sell), carpets (where the market is larger and more stable), and gold jewelry, HHEC's involvement with other handicrafts has been minor, with exports of USD 7.7 million in 1982/83 as opposed to USD 10.4 million in 1980/81. These figures are misleading because

they include the Novo export trade (i.e., regulated imports of the USSR), such that exports of handicrafts to all other countries was about USD 0.3 million in 1982/83.

Many handicraft importers interviewed were familiar with HHEC. They said that HHEC was not commercial enough, sales staff were not motivated, prices were too high, quality should be better, and it should make modern products more suited to Western tastes. At least one importer, however, said the quality and design in carpets and rugs were first rate, and that HHEC was honest and readily replaced defective goods.

In terms of the issues identified, HHEC has not performed any better than the private sector exporters. Like any other merchant-exporter, it does not possess manufacturing capability in its handicraft line. Thus, it charges a commission for its intermediary role which, because of high overhead, makes its products relatively expensive. In quality and delivery, it was more lax than the better private traders. Its biggest failure, however, lies in its inability to develop its handicrafts trade. Handicrafts (other than carpets and G&J) offer the biggest challenges in design, development, and promotion; HHEC, with its resources and potential, should get more involved. Also, the performance of some of its foreign offices could be improved, perhaps by appointing a national of the host country as one of its senior officials.

Implications

For handicrafts to survive, grow, and provide employment to millions of artisans, demand must be created through design, development, and promotion. In fact, successful importing and exporting firms believe that designing is the lifeline of handicrafts. Few pioneer firms are involved in this, however, in either imports or exports. Most firms play a passive role, mostly adapting or modifying existing designs and "borrowing" ideas from rivals. Thus, if handicraft exports are to expand, the government and HHEC must increase substantially their support of design and development. HHEC, especially, will need to lead the way as it did with carpets in the 1960s. In promotional activity, the government could invite (and pay the travel costs of) innovative importing firms to develop product lines in India, and also associate with them in trade fairs abroad.

If they are interested and can attract custom from importing firms (importers often prefer to deal with manufacturer-exporters), large exporters can benefit the economy in terms of foreign exchange earned and of economies of scale in marketing. If they increase their share of handicraft exports, large exporters can also help reduce the instability and unnecessary price wars generated by hundreds of exporting firms vying for orders. Thus, trading houses and other large exporters could perhaps be encouraged to enter the handicrafts trade in a bigger way.

The Artisan: Ultimate Focus of Policy

A complex network of artisans, intermediaries, manufacturers, entrepreneurs, exporters, and importers has developed in the Indian handicrafts industry. One problem perceived by planners and social

scientists is that artisans, who have little bargaining power, are at a disadvantage. For example, they are always subject to the vicissitudes of demand from foreign markets, unlike exporters who can always switch to another product. Moreover, even when they get an order, they are under constant pressure to keep their wages and prices low.

Handicrafts trade is dominated by a handful of importing countries - mainly the Federal Republic of Germany, France, the U.K., and the U.S. (Kathuria 1985). All major exporting countries sell more of their handicrafts in these countries. To reduce the vulnerability of artisans to economic fluctuations, more markets must be found. Developing countries could cooperatively promote similar products in relatively unexplored countries.

Policymakers must realize that the hereditary system of skill transfer is increasingly strained because of the rising cost of living, the uncertainty of employment from unstable foreign demand, and the increasing opportunity cost of training (IDS 1985). The result is a lowering of skills and quality. To arrest this decline, artisans and their children must be induced to remain in the craft through welfare-enhancing measures and greater assurances of employment.

Conclusions and Policy Implications

This paper explored selected price and nonprice factors in international trade in handicrafts. Although the focus was on India, this necessarily involved a study of more general issues, such as barriers to trade and the world market for handicrafts. Even when the data were specifically Indian, as in transport costs and the trading network, the lessons were widely applicable. The definition for handicrafts used for this study was the one adopted by the government of India, and did not include handlooms, khadi, village industries, sericulture, and coir.

Classification of international trade statistics needs to be improved to get more accurate estimates of the world market for handicrafts. The Revised Indian Trade Classification is a rare example of a system that distinguishes between handmade and machinemade items. The quest for better data is not an end in itself, but will help developing countries to monitor their trade performance in this employment-intensive sector more effectively, and place international trade negotiations for handicrafts on a firmer footing. The International Trade Centre or a new body, for example, an "International Handicrafts Organization," could take up this task of reclassifying trade statistics, and also monitor, regulate, and promote international trade in handicrafts.

A related problem is the lack of agreement as to what constitutes a handicraft, with some countries such as Canada and Australia being unduly restrictive. Importing countries should be persuaded to take a broader view and allow mechanical aids and modern equipment, as long as there is a basic, creative, personalized skill involved. This issue is important because most OECD countries give preferential treatment (either duty-free, reduced duty, or duty-free quotas) to handicrafts. Developing countries should press for "enlightened legislation" in a single market, such as EEC or the USA, which could then serve as a reference or bargaining point in their negotiations with other

countries. To make the definition of a handicaft workable, ways and means would have to be agreed upon to identify the extent of value added by hand.

In the international trading environment, import barriers are not an issue in the exports of nontextile handicrafts from developing to developed countries. For textile-based handicrafts (e.g., floor coverings, shawls, embroidery), however, there are some restrictions. In the USA, these take the form of duties. In EEC, a duty-free quota exists which, if exceeded, would necessitate the payment of MFN duty. In practice, this provision has meant that India has had to pay duty only on floor coverings. For a start, these GSP quotas could be replaced by equivalent tariffs that would make them more effective.

GSP has been limited in its effectiveness in promoting handicrafts from developing countries, because often the competition is between developing countries rather than with developed countries, and also because of the limited extent of preference margins (although some of the more advanced developing countries such as Hong Kong, Korea, Singapore, and Taiwan have been able to make better use of GSP than others). Thus, developing countries, as well as pressing for removal of remaining barriers, will have to undertake substantial market promotion in target markets. For example, carpet-producing countries could jointly promote Oriental carpets as highly desirable floor coverings. Even developed countries could aid in trade promotion as the EEC-funded Indian Trade Centre in Brussels has proven.

Restrictions are more severe (with actual quotas) on handloom products because substantial domestic production capacity exists in the importing countries in these industries. Developing countries need to counter such import barriers by emphasizing, in their negotiations, the handmade nature of the products, the concomitant employment generation, and the nonsubstitutability aspect. These, of course, are as true for handicrafts as for handlooms (in fact, end-use substitutability with developed country production is greater for handloom products).

Transport cost differentials were found to influence India's export performance. As a general rule, if competing country freight rates are substantially lower, then a full or partial freight equalization scheme should be considered.

Our detailed study of different trading institutions enabled us to define some of their strengths and weaknesses. Design and development activity is seen as crucial for the survival of handicrafts in international trade, but very few importers or exporters have the resources to undertake it. In this situation, the government and public sector should step in and take the initiative. Active association with the more innovative importing firms in developing and promoting products should be sought.

Finally, to reduce the vulnerability of artisans to the vicissitudes of foreign demand, every effort should be made to diversify both domestic and foreign markets.

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Appendix 1. Standard International Trade Classification categories considered as handicrafts for this study.

Code	Description
63442	Inlaid wood and wood marquetry
63541	Wooden picture, photograph, or mirror frames
63542	Household utensils of wood.
63549	Standard lamps, table lamps, and other lighting fittings of wood; articles of wood furniture not falling within Division 82; wood caskets, cigarette boxes, trays, fruit bowls, ornaments; wood cases for cutlery, drawing instruments, or violins, and similar receptacles; articles of wood for personal use or adornment, of a kind normally carried in the pocket, in the handbag, or on the person; wood parts of the foregoing articles
63599	Other articles of wood
64289	Other articles of paper pulp, paper, paperboard, or cellulose wadding
65191	Metalized yarn
6560	Tulle, lace, embroidery, ribbons, trimmings
65891	Handmade tapestries of the type Gobelins, Flanders, Aubusson, Beauvais, etc., and handmade needle-worked tapestries
65921	Carpets, carpeting, and rugs, knotted (made up or not) of wool or fine animal hair
65929	Carpets, carpeting, and rugs, knotted (made up or not) of other textile materials
6593	"Kelem," "Schumacks," and "Karamanie" rugs, etc.
65941	Carpets, carpeting, rugs, mats, and matting of wool or fine animal hair (tufted)
65942	Carpets, carpeting, rugs, mats, and matting of wool or fine animal hair (woven)
65949	Carpets, carpeting, rugs, mats, and matting of wool or fine animal hair (other than knotted, tufted, woven, knitted, crocheted, or of felt)
65962	Carpets, carpeting, rugs, mats, and matting of other textile materials (other than knotted, tufted, or of felt)
6597	Plaits and similar products of plaiting materials, for all uses, whether or not assembled into strips; plaiting materials bound together in parallel strands or woven, in sheet form (including matting, mats, and screens); straw envelopes for bottles
66132	Building and monumental stone, worked, and articles thereof (including mosaic cubes), other than goods falling within heading 66131 or group 662
66582	Glass beads, imitation pearls, imitation precious and semiprecious stones, fragments and chippings, and similar fancy or decorative glass smallwares, and articles of glassware made therefrom; glass cubes and small glass plates for mosaics and similar decorative purposes; artificial eyes of glass (including those for toys but excluding those for wear by humans); ornaments and other fancy articles of lamp-worked glass; glass grains (kallotini)

6664	Porcelain or China tableware and other articles of a kind commonly used for domestic or toilet purposes
6665	Tableware, etc., of other kinds of pottery
6666	Statuettes and other ornaments, and articles of personal adornment; articles of furniture of porcelain, China, or other ceramic materials
6671	Pearls (natural or cultured), unworked or worked, but not permanently mounted, set, or strung
66729	Diamonds (other than industrial diamonds), cut or otherwise worked, but not mounted or set
6673	Other precious and semiprecious stones, unworked, cut or otherwise worked, but not permanently mounted, set or strung
6674	Synthetic or reconstructed precious or semiprecious stones, unworked, cut or otherwise worked, but not permanently mounted, set or strung
69742	Copper articles of a kind commonly used for domestic purposes and parts of such articles
69752	Copper sanitary ware for indoor use and parts thereof
69782	Base metal statuettes and other ornaments of a kind used indoors; photograph, picture, and similar frames; mirrors
69933	Base metal clasps, frames with clasps for handbags, etc., buckles, buckle-clasps, hooks, eyes, eyelets of a kind commonly used for clothing, travel goods, handbags, or other textile or leather goods; tabular rivets and bifurcated rivets; heads and spangles
69962	Base metal bells and gongs, nonelectric, and parts thereof
69981	Capper articles, not elsewhere specified (nes)
82111	Chairs and other seats (other than those falling within heading 82121), whether or not convertible into beds
82192	Wood furniture, nes
82199	Furniture, nes, of other materials; parts of the furniture falling within heading 8219
84711	Handkerchiefs
84712	Shawls, scarves, mufflers, mantillas, veils of textile fabrics, other than knitted or crocheted
84713	Ties, bow ties, and cravats of textile fabrics, other than knitted or crocheted
84831	Articles of furskin, nes
84832	Artificial fur articles, nes
8484	Headgear and fittings thereof, nes
89242	Picture postcards, Christmas and other picture greeting cards, printed by any process, with or without trimmings
8933	Ornamental articles and objects of personal adornment of the materials falling within division 58.
89422	Dolls
89423	Toys, nes; working models of a kind used for recreational purposes
89425	Carnival articles; entertainment articles (e.g., conjuring tricks and novelty jokes); Christmas tree decorations and similar articles for Christmas festivities (e.g., artificial Christmas trees, Christmas stockings, imitation yule logs, Nativity scenes and figures)
89601	Paintings, drawings, and pastels executed entirely by hand
89602	Original engravings, prints, and lithographs

89603	Original sculptures and statuary
89606	Antiques of an age exceeding 100 years, nes
8972	Imitation jewelry
89731	Articles of jewelry and parts thereof, of precious metal or rolled precious metal (except watches and watch cases)
89732	Articles of goldsmiths' and silversmiths' wares and parts thereof, of precious metal or rolled precious metal (other than goods falling within heading 89731)
89733	Articles consisting of, or incorporating, pearls, precious, or semiprecious stones (natural, synthetic, or reconstructed), nes
89811	Pianos (including automatic pianos, whether or not with keyboards); harpsichords and other keyboard stringed instruments; harps (but not acolian harps)
89821	Pipe and reed organs (including harmoniums and the like)
89823	Other wind musical instruments
89824	Percussion musical instruments (e.g., drums, xylophones, cymbals, castanets)
8991	Articles and manufactures of carving or molding materials
89931	Candles, tapers, night lights
89935	Smoking pipes; pipe bowls, stems, and other parts of pipes (including roughly shaped blocks of wood or root); cigar and cigarette holders and parts thereof
89942	Walking sticks (including climbing-sticks and seat sticks), canes, whips, riding crops)
89949	Parts, fittings, trimmings, and accessories of the articles falling within heading 89941 or 89942
89971	Basketwork, wickerwork, and other articles of plaiting materials, made directly to shape; articles made from goods falling within heading 6597; articles of loofah
89981	Hand sieves and hand riddles of any material
89983	Buttons and button molds, studs, cufflinks, and press fasteners (including snap facteners and press studs); blanks and parts of such articles
89985	Combs, hair-slides, etc.
89987	Tailor's dummies and other lay figures; automatic and other animated displays of a kind used for shop-window dressing
89992	Skins and other parts of birds with their feathers or down, feathers, parts of feathers, down, and articles thereof (other than goods falling within heading 29196 and worked quills and scapes)
89993	Artificial flowers, foliage, or fruit and parts and articles made thereof
89995	Wigs, false beards, eyebrows, and eyelashes, switches, and the like, of human or animal hair or of textiles; other articles of human hair (including hair nets)

Source: United Nations, Department of Economic and Social Affairs 1975, Statistical papers, Series M No.34/Rev. 2.

Appendix 2. Import countries included in the UNSO/ITC Comtrade Data Base System, Main Series (1980-84)

Canada	United States - Puerto Rico
Japan	Hong Kong
Republic of Korea	Singapore
Belgium-Luxembourg	Denmark
France	Federal Republic of Germany
Greece	Ireland
Italy	The Netherlands
United Kingdom	Austria
Finland	Norway
Portugal	Sweden
Switzerland	Australia
New Zealand	

LABOUR CONDITIONS IN THE PHILIPPINE CRAFT INDUSTRIES

by Virginia Miralao

Government support to Philippine craft industries is informed by policies that are similar to those promoting labour-intensive industries, and that see in craft production the potential for generating employment and foreign exchange. Owing to problems in segregating the statistics on craft industries from those on other manufacturing concerns, however, a definitive assessment of their impact on employment and foreign exchange is yet to be made. Previous research has shown some Philippine crafts employ sizable numbers and can earn substantial foreign exchange. (For example, the rattan industry employed about 29% of those engaged in manufacturing furniture and fixtures, and posted export incomes of USD 56.4 million in 1983 and USD 60.2 million in 1984.)

Quite apart from the quantitative contributions of craft production to employment and income, however, other debates surround the consequences of craft-industry promotion on labour or on the general welfare of workers. On one hand, policies favouring the establishment of labour-intensive craft industries are based on the oversupply and, hence, the availability of cheap labour in the Philippines, as in the rest of the developing world. The tendency for firms and entrepreneurs to hold down the cost of labour is thus further aided by conditions of labour oversupply, leaving craftworkers with little bargaining power and only a tenuous hold over their employment, because firms can always hire new workers at lower wages. Moreover, the pursuit of craft production under small-, medium-, or cottage-industry arrangements, and especially under the subcontracting or "putting-out" system, suggests the spill-over of craftwork into informal sector activities where labour conditions can become even more oppressive or exploitative. Responding to these criticisms, on the other hand, are those who argue that, in the face of persistent and rising unemployment, workers have little choice but to enter low-wage work and that employment in underpaid craft activities may be better than no work at all.

Bearing these issues in mind, this paper aims to provide information on the labour conditions in Philippine craft industries that may correct certain conceptions about the circumstances of Filipino craftworkers. To date, the almost exclusive concern of government with generating jobs and foreign exchange through labour-intensive industries in response to the country's severe unemployment, balance of payments, and foreign debt burdens has precluded a closer scrutiny of the quality of employment provided by

craft industries. Hopefully, knowledge of the country's craftworkers, their life situations, and working conditions will help inform subsequent economic policies and broaden our options beyond indiscriminately promoting craft production at the expense of workers, or protecting labour to the point of endangering the existence of craft firms and enterprises.

The data used in this paper are from the Philippine study of the broader Asian Handicraft Research Project that was undertaken to assess the problems and prospects of craft promotion in several Asian countries (Pye 1988). The Philippine study focused its investigation on five traditional Philippine crafts: hand embroidery, rattan furniture making, mat weaving, Igorot handloom weaving and T'nalak weaving. These crafts and locations were chosen to capture the regional and ethnic variety in Philippine handcrafted goods, as well as other differences in the production and marketing arrangements of craft industries. The respondents included entrepreneurs, raw material suppliers, buyers and traders, and craftworkers. Examined in detail in this paper are the data from the worker sample consisting of 150 hand embroiderers; 97 Igorot handloom weavers; 150 rattan furniture workers; 168 mat weavers; and 100 T'nalak weavers.

Locations, Production Arrangements, and Markets

Most provinces and regions of the Philippines boast their own artisanal skills and products, but contrary to popular belief, not all Philippine crafts are rural undertakings (Table 1). In response to expanding markets, the availability of raw materials, and the accessibility of skilled artisans, craft industries may be located in rural or urban areas and may be transformed from small rural household

Table 1. Surveyed Philippine crafts by location, major market, and production arrangement.

Craft	Location	Major market	Type of production
T'nalak weaving	Rural (Lake Sebu, South Cotabato)	Tourist	Independent household artisans (100)
Mat making	Rural (Calape, Ubay, Inabanga in Bohol; Basey, Gandara in Samar)	Provincial/ regional	Independent household artisans (113) Factory-based (35)
Hand embroidery	Rural (Lumban, Laguna; Taal, Batangas)	National	Subcontracted (118) Factory-based (32)
Handloom weaving	Urban (Baguio City)	Tourist	Factory-based (56) Subcontracted (41)
Rattan craft	Urban (metropolitan Cebu)	Export	Factory-based (115) Subcontracted (35)

undertakings to larger enterprises similar to factory settings. Thus, although the rattan-furniture and Igorot-handloom areas in the Philippines are not limited to the city study sites, nonetheless, these cities - metropolitan Cebu and Baguio City - are the country's foremost producers of rattan furniture and Igorot handloom products, respectively. On the other hand, the famed hand-embroidery areas of the Philippines include the study communities of Lumban in Laguna, and Taal in Batangas, which are rural but transitional towns located only a short distance (2-3 hours) from metropolitan Manila. Finally, of the five study crafts, mat making in remote barangays in Bohol and Samar and T'nalak weaving of the upland T'boli of southern Cotabato in Mindanao are clearly rural based.

In turn, the location partly determines how crafts are produced, sold, and distributed to different markets. The urban-based rattan-furniture and Igorot-handloom crafts are produced mainly in factories, although these are also increasingly dependent on subcontracting that allows the industry capitalists to increase their production by employing domestic outworkers whom they provide with the necessary raw materials and pay on a piece-rate basis. Following the organization of an assembly line, some specialization is done by both the factory and subcontracted work force of these urban-based craft industries. In Cebu's rattan-furniture industry, for instance, workers do the many labour-intensive tasks involved in furniture making, such as stripping and bending rattan poles, framing, cane weaving, sanding, and finishing. In Baguio's hand-weaving industry, workers specialize in dyeing yarns, setting up multicoloured threads on looms, or hand weaving.

In hand embroideries of the southern Luzon provinces, factory work prevails in Lumban, Laguna, whereas subcontracting work is dominant in Taal, Batangas. In both areas, however, workers specialize in a given hand-embroidery operation. Individual factory workers in Lumban and entire embroidery villages in Taal specialize in either basic embroidery (burda), latticing (bunot and callado), or aqujero or pelete, which entails scalloping edges on materials used for table-clothes and gowns. Like their counterparts in the rattan furniture and Igorot hand-weaving industries, the factory and subcontracted embroiderers produce on the orders of buyers. In making their craft, therefore, hand embroiderers are expected to follow the design, colour, size, and other specifications of their buyers or employers.

In contrast, production in the more rural, mat-making (Bohol and Samar) and T'nalak-weaving (southern Cotabato) crafts comes closer to the popular conception of crafts as village undertakings, independently engaged in by artisanal households. Family members help gather and prepare raw materials, then Bohol's and Samar's mat weavers and Cotabato's T'nalak weavers take charge of all remaining phases of production, occasionally improving on standard village designs. They also market their own products to traders who come to their areas. As well as an economic activity, T'nalak weaving to the T'boli is a ritual because T'nalak cloth is exchanged in marriages and other village ceremonies. Although the mat-making and T'nalak-weaving villages are relatively isolated and production still has many rural features, larger production and marketing firms have entered the areas in recent years. At the time of the study, a small mat-making factory was found in each of the Bohol and Samar study areas, whereas a

missionary group had started to organize the marketing of T'nalak handwoven products.

Finally, the study crafts that are produced in greater quantities in factories and through subcontracting are also those that, predictably, serve the larger markets. Cebu's rattan-furniture industry, with by far the largest volume of output, produces primarily for export; Laguna's and Batangas' hand embroideries (which count among its products the barong tagalog national wear) serve a domestic but nationwide market. Capitalizing on their ethnic appeal, Igorot hand weaving and T'nalak cloth are directed at tourists and are promoted to highlight the country's regional diversity and cultural richness. On the other hand, the small-scale mat-making industries in Bohol and Samar currently serve only subnational (e.g., provincial or regional) markets, although efforts are also underway to develop these for the tourist and export trades.

Regardless of the rural or urban location of the crafts and the differences in their markets and production, some elements are common to all the crafts and their labour processes. They all reflect Philippine designs and local artisanal skills and, with the exception of the Igorot hand-weaving and hand-embroidery industries that now depend on imported yarns or fabric, all use locally grown raw materials. They are all labour intensive, with many detailed operations that must be done by hand. Industry specialists, in fact, concede that the replacement of the crafts' detailed hand operations by machines is likely to endanger the quality and, hence, the marketability of handcrafted items.

Characteristics of Craftworkers

Usually formulated at national levels, support programs for craft industries rarely consider regional differences in craftwork and the characteristics of the industries' workers. Consequently, economic policies and programs have proven inappropriate in many areas or have completely missed the groups they were meant to serve.

Workers in the study crafts typically consist of women and men who are married, have little education, and are in their late 20s to early 40s (Table 2). The age, sex, marital status, and education of craftworkers varies substantially owing to differences in the skill requirements of their respective crafts, and in the location and production of each craft.

With the exception of Cebu's rattan furniture making, the study crafts are traditionally female activities where male entry remains restricted. Interestingly, the only two males among the Laguna hand embroiderers chose this occupation because of the absence in their communities of "male" alternatives to fishing and farming, which both see as physically demanding and pourly paid. On the other hand, the five male workers in Samar's mat-making industry participate in diverse operations such as framing (for wall hangings); drawing (for embroidered mats); and mat sewing or embroidery on coarser, heavier materials (for floor rugs and double-backed sleeping mats).

Historically, crafts evolved from home-based undertakings by by women. Women's continued dominance in craft activities may lie in

Table 2. Characteristics of survey respondents.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Sex									
Male (%)	-	-	14.3	-	6.2	-	-	28.6	56.6
Female (%)	100.0	100.0	85.7	100.0	93.8	100.0	100.0	71.4	43.5
Age (years)									
Under 20 (%)	2.0	3.0	8.6	20.3	31.2	7.3	1.8	25.7	9.6
20-29 (%)	29.0	22.6	2.8	32.2	18.8	46.3	39.3	31.4	53.9
30-39 (%)	29.0	21.0	20.0	31.4	28.1	31.7	37.5	34.3	27.8
40 and over (%)	40.0	53.4	68.6	16.1	21.9	14.6	19.6	8.6	8.7
No response (%)	-	-	-	-	-	-	1.8	-	-
Mean age (years)	39.1	40.8	43.2	30.1	28.8	30.3	32.8	26.6	28.2
Marital status									
Single (%)	1.0	6.8	17.1	33.9	53.1	14.6	28.6	40.0	31.3
Married (%)	86.0	83.4	74.3	62.7	40.6	78.0	60.7	54.3	66.1
Separated (%)	3.0	0.8	2.8	0.8	-	-	7.1	5.7	1.7
Widowed (%)	10.0	9.0	5.7	2.5	6.2	7.3	3.6	-	0.9

continued

Table 2. Continued.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Female (%)	100.0	100.0	85.7	100.0	93.8	100.0	100.0	71.4	43.5
Education									
No formal schooling (%)	81.0	6.0	5.7	1.7	-	-	12.5	-	-
Some elementary (%)	6.0	51.1	14.3	21.2	28.1	14.6	19.6	40.0	25.2
Elementary (%)	9.0	24.8	40.0	24.6	31.2	22.0	17.8	31.4	40.0
Some high school (%)	3.0	15.0	11.4	14.4	18.8	26.8	12.5	22.8	16.5
High school (%)	1.0	2.2	14.3	19.5	21.9	14.6	16.1	5.7	11.3
Some college and college graduate (%)	-	0.8	14.3	18.6	-	22.0	21.4	-	7.0
Mean number of years in school	1.0	4.8	7.1	7.7	6.5	8.1	6.9	6.1	6.6

[a] Numbers in parentheses indicate sample size.

the congruence between perceived female qualities such as manual dexterity, patience, endurance, and discipline at work, on one hand, and the skill requirements of craftwork, on the other. These same qualities have allowed women to pursue craftwork away from home in formal factory settings and, in fact, to enter "male" crafts such as rattan furniture making, wood carving, and metal crafts. Hence, although Cebu's rattan-furniture workers remain dominantly male, industry sources estimate that women workers now account for a substantial 30% of the industry's work force (Aguilar and Miralao 1985:89). Gender division of labour in rattan furniture making is obvious: heavier tasks (such as stripping, bending, and framing rattan poles) are done by men, whereas women attend to the meticulous but equally laborious tasks of weaving cane strips (sulihiya) for seats and accessories, and sanding and polishing furniture edges and corners not as adeptly reached by men's bigger hands. Therefore, whereas certain crafts that involve handling large, heavy materials may remain the preserve of men, the many detailed and tedious hand operations required in craftwork make it generally selective of a female work force.

Craft activities are not age selective, however, although workers' ages differ from craft to craft because of differing socioeconomic conditions and cultural practices in the craft communities. In the Laguna and Batangas hand-embroidery industries, for example, 23% of women workers are under 20 years old, compared to 2-13% in the other study crafts. Residents attribute the visible participation of young girls in the craft to the poorness of households, which leads daughters to engage in the towns' embroidery trades from an early age. In comparison, 69-77% of Bohol and Samar mat weavers and Cotabato T'nalak weavers are women at least 30 years old, and 40-56% are 40 years old or over. The high incidence of outmigration from the economically depressed provinces of Bohol and Samar accounts for the older age composition of the mat weavers; the greater participation of older women in T'nalak weaving is partly because younger girls are prohibited from the craft as it is thought to be too physically demanding on children. Moreover, because the T'boli tribe has access to agricultural land, their households may not be economically impoverished enough to necessitate the early entry of daughters into T'nalak weaving. On the other hand, the urban-based Igorot handloom weavers and rattan furniture makers are predominantly in their late 20s to early 30s. Being located in cities, these crafts do not attract young people who probably have more chances of proceeding to higher schooling. Neither can these city-based crafts retain older artisans, given the propensity of urban workers to move across different occupations.

Age influences the proportions of married, single, or widowed craftworkers. The majority in each of the study crafts are married, with somewhat more widowed women (6-10%) among the T'nalak and mat weavers, and more single girls (38%) among the younger hand-embroidery work force. The proportions of unmarried workers are also high (23-33%) in the urban-based Igorot hand-weaving and rattan-furniture industries, particularly among factory works.

Most craftworkers have attained only an elementary education. Differences in amount of schooling (from 1 year among the most rural T'nalak weavers to 8 years among Baguio City's handloom weavers) may be explained by differences in the rural and urban locations of the

crafts. Economic necessity may force many rural children into craftwork and deprive them of higher schooling, whereas, in urban areas, not only are schools more accessible, but people with higher education may turn to craftwork because no other jobs are available.

Employment and Income Levels in Craftworkers' Households

Data on the employment of family members and on total household incomes generally locate craftworkers' households at the bottom of the socioeconomic structure and reveal craftwork to be an important source of income for most households.

Craftworkers' households suffer, not so much from unemployment of family members, as from low returns for their work (Table 3). In 36% of the households, for example, the craftworker is one of at least three family members who are currently working or employed. She or he is one of two income earners in another 49% of households, whereas the craftworker is the only household income earner in 15% of households, particularly in those female-dominated crafts with higher unemployment among spouses or other family members. Hence, the highest proportion of households who are solely dependent on the craftworker's employment and income (32%) is noted among Baguio handloom weavers, 26% of whom have husbands who are currently out of work, and 38% of whom have other unemployed family members who are looking for work.

The data reveal that craftworkers' spouses, children, or other relatives also work in crafts or other low-paying, low-skilled jobs in services and other production or processing work. Although T'nalak weavers enjoy access to agricultural lands and work their own farms, agriculture is not a major employer of rural hand-embroiderers and mat-makers; 97% of hand-embroiderers' and 55% of mat-weavers' households no longer have access to farms or agricultural lands. Contrary to the popular notion that rural households engage in crafts to supplement their incomes from agriculture, craftwork and other nonagricultural work are the major economic activities of many rural households.

Total monthly incomes range from PHP 580-1820 among households of rural-based craftworkers to PHP 1200-1965 among those in the urban-based crafts, with only the PHP 11965 income of Cebu's factory rattan workers exceeding the reported average monthly income of Filipino households (PHP 1845) in late 1983 (IBON Facts and Figures, 1984). (At the time of the fieldwork, mid-1983 to early 1984, the exchange rate was 14-19 Philippine pesos [PHP] = 1 United States dollar [USD].) Different income levels are a result of different rural and urban wage rates for crafts and other forms of employment, as well as other differences in the employment of household members and in the availability of other income sources in craftwork areas. Thus, households of hand embroiderers in the rural Batangas and Laguna villages register slightly higher monthly incomes (PHP 1260-1820) than households of urban-based hand weavers because the former have two or three working members on average, compared to one or two income earners in the latter's households. Even with two or three earning members, incomes of hand-embroiderers' households are still below the national average, because the other working members of their households are similarly employed in the villages' low-paying, hand-embroidery trade. In contrast, involvement in agriculture

Table 3. Employment and income in survey respondents' households.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Number of working members of household									
One (%)	8.0	8.3	11.4	4.2	12.5	24.4	32.1	14.3	30.4
Two (%)	66.0	60.9	40.0	47.4	25.0	51.2	50.0	34.3	33.0
Three or more (%)	26.0	30.8	48.6	48.3	62.5	24.4	17.8	51.4	36.5
Identity of working members									
Respondent only (%)	8.0	8.3	11.4	4.2	12.5	24.4	32.1	14.3	30.4
Respondent and spouse (%)	62.0	56.4	28.6	39.8	21.9	46.3	37.5	25.7	20.9
Respondent and one other (%)	4.0	7.5	11.4	14.4	12.5	7.3	14.3	17.1	17.4
Respondent and two others (%)	26.0	27.8	48.6	41.5	53.1	22.0	16.1	42.8	31.3
Respondent's spouse									
Working (%)	97.7	94.6	80.8	95.9	92.3	68.8	73.8	73.7	47.4
Unemployed (%)	2.3	5.4	19.2	4.1	7.7	31.2	26.5	26.3	52.6

continued

Table 3. Continued.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcon-tracted (118)	Factory based (32)	Subcon-tracted (41)	Factory based (56)	Subcon-tracted (35)	Factory based (115)
Households with at least one member unemployed (%)	10.0	30.8	45.7	14.4	28.1	34.2	37.5	17.2	27.0
Number of unemployed	11	57	24	18	9	17	25	8	43
Mean monthly income									
Respondent (PHP)	233.76	151.34	354.04	249.85	490.67	323.12	712.85	52.88	1090.58
Other household members (PHP)	974.39	400.09	513.67	972.43	1286.30	755.19	599.94	915.38	841.70
Other sources (PHP)	77.73	29.45	37.97	38.54	43.58	122.33	100.46	31.38	33.42
Total (PHP)	1285.88	580.88	905.68	1260.82	1820.55	1200.64	1413.25	1299.64	1965.70
Percent of income contributed by respondent									
Up to 25 (%)	65.0	51.9	22.8	61.9	28.1	41.5	3.6	57.1	8.7
26-50 (%)	24.0	27.1	37.1	20.3	37.5	14.6	44.6	8.6	25.2
51-99%	7.0	10.5	28.6	11.9	21.9	12.2	10.7	20.0	39.1
100%	4.0	8.3	8.6	3.4	9.4	26.8	26.8	11.4	27.0
No response (%)	-	2.2	2.8	2.5	3.1	4.9	14.3	2.8	-
Mean	27.3	32.7	45.3	25.7	44.6	48.2	61.4	38.9	64.5

[a] Numbers in parentheses are sample size.

enables rural T'nalak weavers to earn incomes comparable to urban-based craftworkers' households.

Factory rattan-furniture makers in Cebu, mostly male, contribute the highest proportion (64%) to total household incomes. Craftworkers' earnings are just as important in some female-dominated crafts, as in Baguio's hand-weaving industry where earnings of factory workers account for 61% of their household's total incomes. Factory workers, mostly female, in the mat-making and hand-embroidery industries, and subcontracted workers of Baguio's hand-weaving industry contribute 45-48% of total household incomes; whereas earnings of T'nalak weavers and subcontracted hand embroiderers account for only 25-27% of total household incomes. On the whole, craftworkers' earnings are of crucial importance to their households because of the low wages or unemployment of other family members.

Recruitment and Entry into Craftwork

The entry of the craftworkers into their trades appears to have been heavily influenced by the fact that they themselves were born into craft-making families or localities. This is most true of the rural-based T'nalak weaving, mat-making, and hand-embroidery industries where workers report learning their skills by observing other family members or through their association with known artisans in their communities. Differences lie in the age and manner in which rural craftworkers learn their skills, however (Table 4). Hand embroiderers and mat weavers learned their skills at the age of 13-15 and 14-18 years, respectively. Consistent with earlier data showing them to have entered craftwork to help support their families, hand embroiderers and mat weavers say they learned their craft when they started to earn a living. In contrast, T'nalak weavers report acquiring their skills at the mean age of 22 or 23 because of the cultural preference mentioned earlier, that T'nalak weaving be done by older women. Moreover, T'nalak weaving is a cultural, as well as economic, activity that the tribe's women eventually learn in preparation for their own marriages or in connection with other village ceremonies.

Somewhat different recruitment patterns characterize the entry of the urban-based Igorot handloom weavers and rattan furniture makers into their trades. First, only the subcontracted or domestic outworkers acquired their skills from other family or community members engaged in the craft; their factory counterparts usually learned their skills by training or apprenticing in their factories. Second, both the subcontracted and factory workers learned the craft when they were over 20 years old, and only after they had worked in other jobs. Coming from poor families, they had worked in various unskilled jobs, such as sales and services, since they were 15 to 20 years old. Their inability to compete in other urban occupations, however, eventually led them to craftwork which most view as the only job available to them at present. In brief, therefore, the data reveal the continuous transfer of craftwork skills from older to younger generations. With the exception of T'nalak weavers whose involvement in their craft derives from other cultural prescriptions, the entry of rural and urban workers into craftwork is the result of economic conditions or the scarcity of other forms of employment and sources of income in their home regions.

Table 4. Survey respondents' recruitment to the craft.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Age when first learned craft									
Under 10 (%)	-	16.5	11.4	33.9	9.4	2.4	1.8	5.7	1.7
10-19	28.0	63.2	60.0	52.5	81.2	17.1	39.3	62.8	47.0
20 and over	72.0	19.5	25.7	13.6	9.4	80.5	57.1	31.4	51.3
No response	-	0.8	2.8	-	-	-	1.8	-	-
Mean age (years)	22.5	14.6	17.9	12.9	15.0	24.3	22.8	17.5	21.2
Age when started working									
Under 10 (%)	2.0	16.5	20.0	31.4	3.1	2.4	-	8.6	1.7
10-19 (%)	64.0	64.7	57.1	62.7	81.2	53.6	60.7	71.4	76.5
20 and over (%)	34.0	18.8	20.0	5.9	15.6	43.9	39.3	20.0	21.7
No response (%)	-	-	2.8	-	-	-	-	-	-
Mean age (years)	18.8	14.9	15.2	12.1	15.5	19.5	20.5	15.3	17.1
Relatives in craft (%)	93.0	97.0	82.8	95.8	90.6	61.0	44.6	88.6	72.2
Manner of acquiring skills									
Family members (%)	97.0	94.7	88.6	86.4	90.6	19.5	10.7	74.3	34.8
Craftworkers in community (%)	3.0	4.5	2.8	8.5	3.1	65.8	30.4	5.7	5.2
Workplace or school (%)	-	0.8	8.6	5.1	6.2	14.6	58.9	20.0	60.0

[a] Numbers in parentheses indicate sample size.

Employment Stability in Craft-Based Industries

Job stability in craft-based industries is influenced by location, production arrangements, and markets. Independent home-based artisans in the rural T'nalak weaving and mat-making industries and subcontracted workers in the rural hand-embroidery industry had been employed longest (Table 5): 7 years for T'nalak weavers, 16 years for hand embroiderers, 18-19 years for mat weavers. This is partly the result of the "rootedness" of their trades in the socioeconomic or cultural life of their communities. In addition, all three crafts cater to relatively established domestic markets (nationwide for hand embroidery; regional and provincial for mats; and local tourist markets for T'nalak).

Compared to rural craftworkers, urban-based Igorot handloom weavers and rattan furniture makers have less employment stability. On average, Cebu's rattan furniture makers have been at their trade for 5-6 years and Baguio's handloom weavers for 3 years. Their fewer years in craftwork may be explained in part by the tendency of urban workers to change jobs when new employment opportunities become available. Market demand for rattan furniture and Igorot hand weaving may be the more important factor influencing employment stability in these industries, however. Hence, expansion of Cebu's rattan furniture export trade means more years of employment for the industry's work force. Moreover, few rattan furniture workers have been laid off, and most report overtime work in response to the large volume of orders periodically received by their firms. In contrast, the market for Baguio's Igorot hand weaving has been adversely affected by the dramatic decline in the city's tourist trade, following the country's economic crisis of the last 2-3 years. The industry's work force, therefore, reports fewer years of employment in the craft.

A final comparison of employment stability needs to be made between factory and subcontracted workers, limiting the comparisons to the Baguio handloom weaving and Cebu rattan furniture industries where the factory system and subcontracting arrangements have become institutionalized. Firms subcontract work (or hire domestic out-workers) only when they are unable to meet orders with output from their factories; therefore, subcontracted workers have spent less time in craftwork than their factory-based counterparts. The factory workers among Baguio's handloom weavers and Cebu's rattan furniture makers, for instance, have accumulated 1 and 2 more years of employment, respectively, than their counterparts in the subcontracted work force. Nonetheless, even factory craftworkers have no security of tenure in their present jobs. Despite their relatively longer years of employment, 64% of factory-based handloom weavers and 79% of factory workers in the rattan furniture industry have no employment contracts and are not considered permanent workers of their firms. Tied to the market demand of their products, employment for Baguio's handloom weavers and Cebu's rattan furniture makers is largely dependent on the ability of their industries to withstand market competition and other fluctuations in the country's and world's economic activity.

In general, stable employment in craftwork seems to be associated with the less visible and frequently neglected rural-based crafts that cater to more limited but established national and subnational domestic markets. The data also show that the export and tourist craft industries, which are more favoured by government policies, actually

Table 5. Employment stability of survey respondents.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Number of months with current client or employer									
Less than 12 (%)	-	0.8	60.0	0.8	21.9	41.5	23.2	34.3	8.7
12-47 (%)	26.0	18.0	17.1	8.5	50.0	36.6	48.2	31.4	24.3
48-83 (%)	17.0	7.5	22.8	21.2	18.8	12.2	7.1	11.4	29.6
84-119 (%)	18.0	5.3	-	6.8	6.2	2.4	7.1	5.7	29.6
120 and over (%)	39.0	68.4	-	62.7	3.1	4.9	14.3	14.3	7.8
No response (%)	-	-	-	-	-	2.4	-	2.8	-
Mean (months)	85.8	223.7	21.7	191.9	38.3	28.3	44.6	47.9	72.7
Factory workers									
Worked continuously since time of hiring									
Yes (%)	-	-	80.0	-	90.6	-	89.3	-	89.6
No, laid off	-	-	5.7	-	-	-	1.8	-	7.0
No, other reasons (marriage, birth, etc.) (%)	-	-	14.3	-	9.4	-	8.9	-	3.5
Have employment contract (%)	-	-	100	-	100	-	35.7	-	20.9

[a] Numbers in parentheses indicate sample size.

make for shorter-term employment among the work force. Export and tourist crafts also rely on subcontracting allowing firms to conveniently hire and fire workers without compensating them in terms of fairer wages or improved working conditions.

Wages and Related Terms of Employment

Differences in wages and earnings exist between urban- and rural-based craftworkers, as well as between factory and subcontracted workers (Tables 6 and 7). Factory workers put in more regular hours and net, in absolute terms, higher incomes from craftwork. Igorot handloom weavers in Baguio and rattan furniture makers in Cebu devote more than the equivalent of a full working week (8 h/day and 6 days/week) to their trades, earning an average PHP 603.53/month (PHP 3.27/h) and PHP 909.40/month (PHP 4.38/h), respectively. Almost half of the factory workers in these urban-based crafts, however, continue to be paid on a piece-rate basis rather than on the time-rate system usually associated with factory work. Piece work allows firms to pay only for work that comes up to specifications and not for time spent on the production of defective outputs that may sometimes arise from the use of substandard raw materials rather than from the inefficiency of the workers themselves.

Subcontracted workers in urban Baguio and Cebu, on the other hand, spend variable hours in craftwork and hence are paid on a

Table 6. Employment and wages of factory-based survey respondents.

	Mat weaving (35)[a]	Embroidery (32)	Hand weaving (56)	Rattan (115)
Basis for payment				
Daily rate (%)	45.7	100.0	46.4	53.9
Piece rate (%)	54.3	0	53.6	46.1
Hours worked per day				
Less than 8 (%)	22.8	3.1	1.8	0.9
8 (%)	31.4	6.2	89.3	93.0
More than 8 (%)	45.7	90.6	7.1	6.1
No response (%)	0	0	1.8	0
Days worked per week				
Less than 6 (%)	20.0	9.4	0	4.3
6 (%)	68.6	90.6	96.4	91.3
7 (%)	11.4	0	1.8	4.3
No response (%)	0	0	1.8	0
Mean monthly earnings (PHP)	286	317	603	909
Mean wage rate (PHP/h)	1.60	1.46	3.27	4.38

[a] Number of respondents.

Table 7. Employment and wages of household artisans and subcontracted worker-respondents.

	Independent household artisans		Subcontracted workers		
	T'nalak weaving (100)[a]	Mat weaving (133)	Embroidery (118)	Hand weaving (41)	Rattan (35)
Basis for payment					
Daily rate (%)	-	-	-	-	34.3
Piece rate (%)	100.0	100.0	100.0	100.0	65.7
Work hours/day					
Less than 8 (%)	73.0	78.9	64.4	80.5	22.8
8 (%)	24.0	17.3	14.4	14.6	48.6
More than 8 (%)	3.0	3.8	21.2	4.9	28.6
Work days/week					
Less than 6 (%)	12.0	35.3	24.6	39.0	8.6
6 (%)	58.0	40.6	42.4	41.5	85.7
7 (%)	30.0	24.1	33.0	19.5	5.7
Mean net earnings (PHP/month)	222.38	110.88	208.73	307.95	358.86
Mean wage rate (PHP/h)	1.40	1.08	1.21	2.59	1.81

[a] Numbers in parentheses indicate sample size.

piece-rate basis. Although some entrepreneurs have argued that the piece-rate system offers incentives for higher worker productivity, the data reveal certain limits to the system, given the extremely low hourly wage rates associated with subcontracting. Earning only PHP 1.81/h, subcontracted rattan furniture workers in Cebu must spend 50 h at their trade each week to earn PHP 358.86/month or about 40% of the earnings of their factory-based counterparts. Similarly, at their current rate of PHP 2.59/h, Baguio's subcontracted handloom weavers would have to work 58 h/week to match the PHP 603.53/month earnings of their factory counterparts. Because they spend only about 25 h/week at their craft, they earn only PHP 307.95/month.

Further wage comparisons among urban craftworkers also reveal that factory workers in Cebu's rattan industry consistently earn the highest monthly incomes and hourly wage rates among all urban craftworkers. As noted earlier, their PHP 909.40/month is substantially higher than their subcontracted counterparts, and is also 34% higher than the next highest paid factory workers in Baguio's handloom industry. These differences in income occur because men (who generally command higher wages than women) account for the larger proportion of Cebu's rattan factory workers, whereas women dominate the industry's lower-paid subcontracted workers as well as the lower-paying hand-weaving industry in Baguio City.

In contrast to urban craftworkers, those in rural areas predictably earn lower wages and incomes from crafts. With the exception of the home-based mat-weavers in Bohol and Samar who spend only 27 h/week on craftwork, however, rural craftworkers devote roughly as many hours to crafts (36-54 h/week) as their urban counterparts. Compared to urban craftworkers, however, they net lower monthly incomes (PHP 110.88-317.52) and command lower hourly wages (PHP 1.08-1.60).

As in urban-based crafts, factory workers in rural crafts earn more than subcontracted or home-based workers. In Taal and Lumban, for example, factory-based hand embroiderers earn PHP 317/month, 52% more than the monthly earnings of subcontracted hand embroiderers (PHP 208). In Bohol and Samar, the few workers in the emerging mat factories earn more than twice as much (PHP 286/month) as the independent home-based weavers. Nonetheless, the highest earnings of PHP 317/month registered for factory embroiderers in Taal and Lumban are more the result of long hours at work (53-54 h/week), because their hourly wage (PHP 1.46) is not appreciably higher than that of subcontracted hand embroiderers (PHP 1.21). Considering that the hand embroidery towns are far less rural than the remote mat-making villages in Bohol and Samar and the T'nalak weaving area in south Cotabato, hand embroidery, even in factory set-ups, may be the least remunerative of the rural-based crafts studied.

Daily wage rates of the highest paid craftworkers (PHP 37.89 for Cebu's rattan factory workers and PHP 25.15 for Baguio's factory handloom weavers) are substantially lower than the minimum legal wage of PHP 50.83/day for nonagricultural workers outside metropolitan Manila in 1984; the wages of all other urban and rural craftworkers (PHP 5.18-15.02/day) are much below the PHP 37.25/day minimum prescribed for agricultural workers for the same period (IBON databank 1985). Similarly, in none of the study crafts do the monthly earnings of workers reach the average levels reported for male and female wage and salaried workers in 1983. Even the highest monthly earnings of the predominantly male factory workers in Cebu's rattan industry are PHP 274 less than the average earnings of male wage workers. The highest monthly earnings for female factory workers in Baguio's hand-weaving industry are PHP 310 less than the average female wage and salaried workers in 1983.

Nonetheless, in terms of wages, craft industries do not necessarily exploit workers more than other industries. Although wages in the craft sector are lower than nationally stipulated minimum wage rates, Philippine firms and industries seldom follow minimum wage legislations. Wages of craftworkers should be compared with the prevailing market wages paid to workers in other industries, but such data are seldom available.

Certain features of craft industries, however, do encourage the exploitation of workers. Craft-based industries depend heavily on female workers, who are generally paid lower wages than men. Further, the increasing incidence of subcontracting in craft-based industries offers firms and entrepreneurs not only the advantages of a cheaper labour force, but also one they can easily dispense with in times of market or economic slumps. The practice of paying craftworkers by piece work may also prevent workers from being fully compensated for their long hours. Finally, the incentives granted by government to

firms, particularly exporting ones, which include exemptions from minimum wage and job security laws, and the denial of workers' rights to organize and strike, also curtail the bargaining power of factory workers and help hold down the wages and earnings of workers in craft-based industries.

Employment Benefits

Apart from their direct wages, craftworkers receive few economic rewards in the form of employment benefits. Consistent with the tendency for craft firms to disregard labour legislation on job security and minimum wage levels, craft enterprises seldom adhere to labour legislation concerning payments of the following benefits to workers: social security, medical care, sick and vacation leave entitlements, and a 13th month pay. Of the craft firms in the study, only the rattan furniture firms in Cebu provide a substantial number of their workers with these legislated benefits (Table 8): over 75% are entitled to social security and medicare payments, 60% are entitled to sick leaves, and 50% to vacation leaves and the 13th month pay for employees. The payment of benefits is less common in the other study firms, however. The Baguio hand-weaving factories and the new mat-making firms in Bohol and Samar provide social security and medicare payments to only 30-43% of their workers, and sick and vacation leaves and the 13th month pay to fewer than 10%. Factory-based hand embroiderers in Laguna receive no benefits from their employer. As with minimum wage laws, the nonpayment of legislated benefits is probably just as widespread in other industries. Therefore, working conditions are not necessarily harsher in craft industries than in other types of manufacturing concerns. Nonetheless, the data lend ample support to the many and repeated complaints regarding the ineffective implementation of labour legislation in the Philippines.

With regard to the subcontracted work force, some entrepreneurs have been heard to justify the payment of lower wages to domestic outworkers in terms of other "patronage benefits" (e.g., loans for emergencies, schooling of children, and medical care) reportedly given the subcontracted workers and their households. The study found little support for this view, however, as fewer than 10% of subcontracted workers in the various study crafts have been recipients of food and clothing aid, and loans or bonuses from their employers. Prevailing structures of craft production no longer perpetuate patronage relations between entrepreneurs or employers and their subcontracted work force. Urban-based crafts are characterized by subcontracting arrangements, in which relations are generally impersonal. Even in the rural-based hand-embroidery industry of Batangas and Laguna, which is similarly dependent on a subcontracted work force, the relations of employers with their domestic outworkers are as "contractual" as their relations with their factory workers, and do not entail special obligations beyond the payment of (lower) piece-rate wages.

Health Hazards in Craft-based Industries

Of the five crafts studied, the rattan furniture and hand-embroidery industries are distinctly associated with certain physical injuries and health risks (Table 9). In both industries, over 50% of the workers say that they or co-workers have suffered from illnesses

Table 8. Percentage of worker-respondents entitled to employment benefits.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Legislated benefits									
Social security	-[b]	-	40.0	-	-	-	42.8	-	77.4
Medicare	-	-	40.0	-	-	-	30.4	-	75.6
Sick leave	-	-	-	-	-	-	8.9	-	64.3
Vacation leave	-	-	2.8	-	-	-	7.1	-	50.4
13th month pay	-	-	2.8	-	-	-	7.1	-	51.3
Nonlegislated benefits									
Free housing	-	-	2.8	-	-	-	1.8	-	0.9
Free meals	-	-	5.7	-	3.1	-	-	-	-
Free medicine	-	-	-	-	-	-	-	-	21.7
Loan benefits	-	-	-	-	9.4	-	5.4	-	24.3
Other benefits	-	-	17.1	-	59.4	-	46.4	-	67.8

[a] Numbers in parentheses indicate sample size.
[b] -, none.

due to their craft activities. In the rattan furniture industry, health risks are mainly hand or body injuries that result from handling sharp rattan poles and vines, or from the constant and prolonged sanding and finishing of furniture parts. A substantial number of rattan factory workers also complain of respiratory illnesses that they trace to exposure to rattan dust particles or to chemicals used in their products. In the hand-embroidery industry, workers complain of eye strain, headaches, and respiratory diseases. Eye strain results from working on extremely fine, detailed embroidery designs; headaches and respiratory illnesses may relate to eye strain or may be caused by long hours at work.

Igorot hand weaving, mat making, and T'nalak weaving, on the other hand, are not as risk prone. Although many admit to having been ill from craftwork, workers in these industries mainly complain of backaches and hand and body pains caused by repetitive motions or staying in one position while doing their craft. Nonetheless, hand, mat, and T'nalak weavers tend to minimize the hazards in their industries, because the risks are not as visible or serious as hand wounds and eye strain. Considering that they also spend overly long hours in craftwork, however, they are equally in need of health protection.

In brief, craft activities entail health risks that require the adoption of precautionary measures within industries and provision of health care to employees. As noted earlier, however, safety measures and health care have not been institutionalized, except possibly in Cebu's rattan furniture factories, which offer medicare payments to some of the work force and maintain emergency clinics on their premises. The hand-embroidery firms and Igorot hand-weaving factories have no provisions for their workers, and given the limited obligations of buyers and entrepreneurs to craftworkers in the putting-out system, subcontracted workers are left to their own resources to protect themselves from the hazards of craftwork.

Worker Unions and Organizations

On the whole, production arrangements in craft industries inhibit formation of worker associations that can work for improvements in craftworkers' wages and working conditions. Even in craft firms or factories, which draw workers to a common workplace, the majority report no affiliation with unions or other worker associations (Table 10). As in other manufacturing industries, the formation of unions in craft firms has been stymied in part by earlier restrictive Philippine legislation banning labour from organizing and staging strikes. Because most workers have no tenure in their firms, they cannot forge the unity necessary to set up their own workers' associations. Other factory craftworkers further attribute the absence of unions to lack of leadership as well as to heavy workloads that leave little time to organize and initiate union activities.

Possibilities for union-building are even more limited for subcontracted workers. Unlike factory workers who report to a single workplace, subcontracted craftworkers operate independently and are often located in different areas or villages. Moreover, because domestic outworkers serve different buyers, entrepreneurs, or labour contractors, they cannot easily recognize, much less articulate, common grievances at work.

Table 9. Health hazards in craftwork.

	T'nalak weavers	Mat weavers		Embroiderers		Hand weavers		Rattan workers	
	Independent household artisan (100)[a]	Independent household artisan (133)	Factory based (33)	Subcontracted (118)	Factory based (32)	Subcontracted (41)	Factory based (56)	Subcontracted (35)	Factory based (115)
Workers ill because of work (%)	60.0	48.1	45.7	55.9	75.0	0	17.9	17.1	61.7
Nature of illness									
Bodily aches (%)	58.3	68.8	68.8	25.8	12.5	0	0	0	0
Respiratory diseases, headache, flu (%)	26.7	18.8	12.5	45.4	41.7	0	50.0	33.3	38.0
Wounds (%)	0	10.9	6.2	0	0	0	0	50.0	54.9
Eye strain (%)	3.3	0	0	25.8	41.7	0	40.0	0	0
Other[b] (%)	11.7	1.6	12.5	3.0	4.2	0	10.0	16.7	7.0

[a] Numbers in parentheses indicate sample size.
[b] Hypertension, stomache ache, skin diseases, etc.

Table 10. Percentage of artisans reporting presence of worker union or association by craft.

	No organization	Union	Association
T'nalak weavers			
Independent household artisans (100)[a]	100	0	0
Mat weavers			
Independent household artisans (133)	91.0	0	9.0
Factory based (33)	51.4	0	48.6
Embroiderers			
Subcontracted (118)	100	0	0
Factory based (32)	100	0	0
Hand weavers			
Subcontracted (41)	95.1	0	4.9
Factory based (33)	71.4	19.6	8.9
Rattan workers			
Subcontracted (35)	100	0	0
Factory based (115)	67.0	27.8	5.2

[a] Numbers in parentheses indicate sample size.

For the same reasons as subcontracted workers, independent household artisans in the rural mat-making and T'nalak-weaving industries remain unorganized. Inadvertently, therefore, they compete with each other in underpricing their goods when traders buy their products. Nonetheless, in Samar and Bohol, a number of factory and home-based mat weavers report membership in informal mutual aid associations that can serve as the basis for further organization into mat-weaving cooperatives or associations. Compared also to their factory and subcontracted counterparts, organizing work among independent household artisans in the rural mat-making and T'nalak-weaving crafts may be easier to accomplish, because it will not involve confronting the interests of any single entrepreneur.

Organizing work remains important not only to independent household artisans but even more so to factory and subcontracted craftworkers. As it is, their bargaining position has been weakened by high unemployment and the national economic crisis that has allowed entrepreneurs to conveniently point to losses in their operations in dealing with labour's demands for improved wages and working conditions. Hence, the imposition of wage restraint policies and other restrictions on the rights of workers to organize may represent unnecessary intrusions to the establishment of fairer market wage levels and employment practices. Rather than imposing further restrictions on labour, therefore, government and private initiatives should assist craftworkers to organize and independently press for improvements in wages, health protection, and other benefits.

Conclusions

Lending some support to criticisms directed at craft promotion policies, the study findings show that Philippine craft industries are exploitive. They are selective of a low-paid female work force and encourage unfair labour and employment practices through widespread individual subcontracting. Moreover, whether in factory set-ups or subcontracting arrangements, and whether payment of wages is by piece or time rate, earnings of craftworkers do not reach the country's legislated minimum wage levels, nor do craft firms comply with other regulations regarding job security and the provision of health and other legislated benefits to workers. The unfavourable working conditions are exacerbated by repressive labour policies exempting craft industries from minimum wage laws and banning workers from organizing or unionizing.

Lacking comparable data on the working conditions in other industries, however, we have little basis for saying that craft industries are more exploitive of workers than other labour-intensive industries. In addition, the data do not show the various Philippine craft industries to be equally oppressive of workers, although there are indications that craft promotion policies may have favoured certain production and marketing arrangements that are unfavourable to workers. The heavy export orientation of craft policies, for example, favours urban-based crafts that are more dependent on the exploitive putting-out system, to the neglect of rural-based crafts for the domestic market, which offer greater employment stability and sometimes better returns. Furthermore, there appears to be a mismatch in existing policies that aim to simultaneously use craft production as a means of developing small and medium industries and increasing the country's export capabilities. Export markets generally demand higher levels and quality of production that small and medium enterprises are ill-equipped to serve, both for reasons of size and because large volumes of production are contrary to the nature of handcrafted items. The push for large-scale export production increases subcontracting, the most disadvantageous employment for craftworkers.

At the same time, however, each craft has its own special advantages or drawbacks that should provide the focus of craft promotion or corrective policies and programs. Although rating poorly in its treatment of subcontracted workers, the Cebu rattan furniture industry, for instance, offers more favourable conditions to factory workers, and is further favoured by an indigenous raw material base and by an expanding export market. The Laguna and Batangas hand-embroidery industries, on the other hand, provide workers with longer term employment, but their continued dependence on high-cost imported jusi fabric has prevented improvements in the workers' earnings and wages. The rural mat-making industries also have the advantage of using indigenous raw material, although improvements in their design and production technology are badly needed to bring these to the level of the similarly rural but more viable T'nalak weaving craft.

Given the differences in locations, markets, production arrangements, and raw material sourcing in craftwork, policies and programs for craft industries should be formulated locally and integrated in provincial and regional development plans, rather than,

as in current practice, derived simply from national macroeconomic plans or conventional economic planning strategies. Local-level planning can help ensure that craft activities that may provide the economic lifeblood of certain communities and regions are not neglected or ignored. Local-level planning should also allow for a more realistic appraisal of the strengths and weaknesses of specific craft industries (e.g., raw material sourcing, market possibilities, and effects on labour) so that those with little potential are not given unnecessary assistance or incentives. Consequently, whether a craft should be promoted to generate further employment in a given place, or whether it should be developed as a small, medium, or large industry, or promoted to serve a domestic, tourist, or export market is best decided only at the local level by those familiar with the conditions and potential of the craft. Otherwise, policies may continue to be inappropriate and of little use to many of the country's craftwork areas, or to favour only the larger craft firms that are relatively less needy but that have more knowledge of or better connections with government programs.

The country's craftworkers have a number of common characteristics that policymakers should recognize and appreciate. Craftworkers are recruited from the bottom of the socioeconomic structure of their communities. In addition, craftworkers, mostly women, are usually among the two or three income-earners upon which their household depends. On average, craftworkers' earnings account for 25-45% of total household income in rural-based crafts, and 39-64% of those located in the urban areas. Craftwork contributes substantially to total household income because of the limited access to agricultural lands and to other employment and sources of livelihood in the regions. With a few exceptions, craftwork, contrary to common thinking, does not supplement agricultural activities of households in the rural areas. As in urban areas, craftwork in the rural barangays is frequently the subsistence economic activity of the workers' households.

For this reason, then, we need to protect local craft industries to ensure the livelihood of individual households and sometimes of entire communities that are economically dependent on crafts (e.g., the Laguna and Batangas hand-embroidery barangays and the Bohol and Samar mat-making villages). If craft promotion is to benefit these households, it must transform craftwork beyond a mere subsistence activity. At present, the extremely low wages and the unfavourable terms of employment in craft industries do not allow for meaningful improvements in household income and living conditions. The standard prescription of encouraging workers to be more industrious and to devote more time to craft activities to increase their earnings has apparently reached its limits because, in most instances, craftworkers already devote more than a full working week to their trade. Even where craftworkers spend fewer hours in their craft and could theoretically be induced to work longer through such schemes as payment by piece work, the low wage rates associated with craftwork do not offer sufficient incentives for additional work. Moreover, married women, who constitute the majority of craftworkers, cannot realistically be expected to devote more hours to crafts considering their additional responsibilities for child care and housework.

Nonetheless, the study suggests that other ways remain to improve the viability of craft industries, craftworkers' productivity, and

returns to labour. First, to the extent that worker earnings in craft industries have been adversely affected by the high costs of other production inputs, lowering nonlabour costs to effect improvements in the craftworkers' earnings should be seriously examined and considered. In a companion study (Pye 1988), entrepreneurs trace their high costs of production to the heavy dependence of some Philippine crafts (e.g., hand embroidery) on imported raw materials, high and redundant licensing fees, the payment of several costly taxes, as well as the widespread practice of bribing government officials to get through the bureaucratic procedures required of craft firms and business. Over the long term, reducing the high cost of craft production will entail protecting and developing an indigenous raw material base for Philippine crafts through such schemes as replanting and reforestation for rattan and wood crafts, and fibre development for the country's many hand-weaving and hand-embroidery industries. In the short term, however, streamlining government requirements, applying more judicious taxes, and improving the efficiency of government agencies may offer more immediate relief to craft firms and industries and allow them to accommodate improvements in the workers' wages and employment conditions. For too long, the increasing cost of craft production has been used to justify wage restraint policies even though cutting the costs of craft industries' nonlabour production inputs is possible.

Admittedly, however, reducing nonlabour costs offers no assurance that craft firms and entrepreneurs will pay their workers higher wages or improve working conditions. Hence, it is equally important that government and private initiatives in craft promotion lift restrictive labour laws and assist craftworkers to organize and form their own groups or associations. Until recently, government policies toward labour have been extremely restrictive, even as the country's high unemployment rates and economic difficulties have favoured craft firms and entrepreneurs and weakened the bargaining position of workers. Other positive labour legislations on minimum wage levels and worker benefits are likely to remain meaningless and ineffective if, at the same time, the workers are banned from organizing, or left unorganized, as they cannot then demand that firms comply even with these minimum labour policies.

Although lifting restrictive labour policies may benefit craftworkers in the factories, this may have little impact on the substantial subcontracted work force who are the most exploited craftworkers. Policies that indiscriminately promote subcontracting need to be reviewed closely, and alternative methods for subcontracting need to be set up in those areas where other employment and sources of income are not available. Because subcontracted workers are usually found in traditional craftwork villages (or in areas with the resident craftwork skills), attempts might be made to organize them into production cooperatives that can collectively accept subcontracting orders from firms and buyers. Subcontracting work to individual workers, which only results in the underpricing of labour, is thus minimized. A collective could negotiate fairer pricing for their labour and deal better with the bigger firms that need their particular artisanal skills.

Among independent household artisans, bolder experiments and organizing efforts may be attempted to evolve alternative production and marketing arrangements for the crafts. Several smaller crafts in

the Philippines continue to be produced by independent artisans in rural villages. These crafts usually use indigenous raw materials (e.g., abaca for T'nalak weaving and pandan leaves for mat weaving) easily grown or found locally. In addition, several enterprising groups feel these crafts have the potential to expand into a bigger national or export market. Thus, before the entry of big capitalists and entrepreneurs, and before independent artisans are again reduced to factory workers or, worse, to a subcontracted work force, efforts can and should be made to organize them into craftworkers' cooperatives capable of looking after their own interests and furthering the development of their crafts. No doubt, organizing the independent craftworkers will require assistance, but owing to the relative absence of bigger entrepreneurs and traders in their villages, such efforts are also less likely to encounter resistance from established interest groups.

In particular, the assistance needed will entail not only organizing them into cooperatives, but also upgrading their technical knowledge on protecting and conserving their raw material base, improving their product designs, diversifying these into other marketable items, and linking craftworkers with the appropriate domestic, tourist, or export markets. An earlier review (Reyes and Miralao 1984) reveals that existing government programs for small and medium industries provide assistance such as capitalization, design and technical improvement, and marketing, except that these are designed to reach firms and entrepreneurs rather than independent artisans or cooperatives. If government programs are to service craftworkers' households and villages, it would be wise to link these with some of the cooperative-building efforts that have already been initiated by private volunteer groups and nongovernmental organizatons. Cooperative-building will help ensure that craftworkers retain some control over the production and marketing of their products and, hence, also over the returns to their labour.

In brief, craft production in the Philippines has reached various stages or levels, with some now clearly entrenched in factories and subcontracting and others remaining as household endeavours in the rural areas. Each form of production engenders its own exploitive tendencies so that protecting workers will require different measures depending on the existing production and marketing arrangements surrounding a given craft. On the whole, formulating and implementing more judicious labour legislation may help counter the exploitive tendencies in factory craftwork. Although banning craftwork subcontracting is impractical because of the absence as yet of other local employment alternatives, government regulation to control the incidence of individual subcontracting and to organize workers is necessary to protect the craft industries' subcontracted labour. Finally, for the many independent craftworkers in the rural areas, efforts to transform them into integrated craft cooperatives knowledgable in taking care of their raw material supplies and producing and marketing their own products, may offer opportunities to shape production and marketing structures most beneficial to workers and to the development of local crafts.

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LABOUR CONDITIONS IN THE INDONESIAN BATIK INDUSTRY

by Rebecca Joseph

In recent years, population growth and declining labour absorption in the agricultural sector have made the improvement of off-farm employment opportunities in rural areas of Java a policy priority. Rather than initiate rural industrialization, the Indonesian government has developed a number of programs intended to create jobs by bolstering existing labour-intensive industries that employ rural labour, especially crafts. It is assumed that jobs in the cottage and small-scale industry sectors improve the standard of living in rural areas by providing landless villagers with cash income. Increased employment opportunities in these industries may also reduce urban migration.

By examining labour conditions in one of the largest labour-intensive industries, the batik industry, this paper demonstrates that government support of crafts entrepreneurs has so far been unsuccessful in improving the welfare of the vast majority of poor artisans, many of whom are landless villagers. Data cited were collected by researchers at the Institute for Rural and Regional Studies, Gadjah Mada University, in three urban and six rural areas on Java and Madura between November 1984 and January 1985. The principal researchers, in addition to the author, were Dr L. Soetrisno, Dr G. Soemodiningrat, and M.A. Soeratno. For comparative purposes, both urban and rural findings are included.

In 1976, the combined Java-Madura labour force was 33.2 million. Agriculture employed 59%, only a small number of whom were producing cash crops. Budiono et al. (1982:6-7) came to the following conclusions in their analysis of the Central Statistics Office's Annual Agricultural Surveys for the years 1971-1978:

> At present wages and with a marginal product approaching zero, employment in rice agriculture on Java/Bali is likely to rise only with expansion of double cropping due to irrigation. A 2% expansion would be a fast rate, in line with past experience. But the labour force is growing at 3% a year. And if real wages are to keep up with a 6% a year growth in National income, to keep income disparities from rising, labour in agriculture would need to decline by roughly 3% per crop. With expanded double cropping/irrigation absorbing 2%, the net decline in rice agriclture would need to be 1% of the labour force per year. With some 15 million workers in non-cash crop agriculture in Java/Bali, some 150,000 would have to be found other jobs a year,

to keep wages rising. The normal increase in the labour force is about 1 million. So about 1.1 million jobs are needed on the Other Islands or in non-agricultural income to prevent worsening income distribution.

Rice agriculture, the predominant agricultural activity on Java, provides employment to families owning plots of 1 ha or less for only 5-10% of available workdays (Budiono et al. 1982:128). Therefore, most families operating rice land must find other employment for 90% or more of their time. Other crops and livestock provide some additional work, but the vast majority must come from nonagricultural sources such as crafts production, fuel-gathering, and small-scale trading. Increasingly, village men are seeking work in construction and as unskilled labourers in urban areas.

Characteristics of the Batik Labour Force

Our worker sample focused on people involved in the wax-resist processes used in batik production. The 96 workers in eight areas interviewed for the study may not be statistically representative because the research sites were chosen to highlight certain issues that the team was interested in investigating, e.g., the problems of export-oriented production. In addition, the sample was taken only from batik-producing areas in the Special Region of Yogyakarta (DIY), central Java, and Madura. Batik production centres in west Java, along the north coast, and in east Java were not studied nor were the recently established batik industries in south Sumatra or Bali. Thus, the statistical data in this chapter should be interpreted as indicators of trends only and not necessarily representative of the industry as a whole.

The ratio of women to men interviewed was 3:1. No large-scale survey has been done to determine the exact numbers of men and women employed in the industry. Employment surveys tend to underestimate the size of the work force because women working at home who are not household heads are frequently overlooked, as are unpaid family members and school-age children. However, we suspect that the ratio of women to men in the industry work force may be as great as 3:1 with some variation from one area to another.

In a composite sketch, the typical stamper (tukang cap) would be a married male, Muslim, and almost 35 years old. He has slightly more than an elementary school education and has been employed in the batik industry for 20 years. The cap worker probably lives in a rural area. The typical canting[1] worker is a village woman who attended elementary school for several years, but did not finish. She is 28 years old, Muslim, and probably married, although there is a good chance that she is divorced or widowed. She began making batik at the age of 10 years. Our typical workers live in households comprising four people with a 30% chance of there being at least one child under 5 years of age.

Batik skills tend to be passed through families, especially in rural areas that are known for batik production. Almost 75% of the

[1] Penlike instrument used to draw patterns on cloth with wax.

Table 1. Agricultural employment and ownership of rice land among batik workers.

	Java			
	Urban	Rural	Madura	Total
Agricultural employment (%)	20.8	38.2	41.7	34.7
Rice land holdings				
No land (%)	91.7	60.4	41.7	63.5
0.3 ha (%)	4.2	31.3	54.2	30.2
0.3-0.5 ha (%)	-	4.2	-	2.1
0.5-1.0 ha (%)	4.2	2.1	4.2	3.1
1.0 ha (%)	-	21.0	-	1.0

workers interviewed have close relations working in the industry; 40% have three or more family members doing batik work. When asked why they do batik work, 63% of the rural workers cited batik making as a family profession as their first reason, and 23% said no other work was available in their areas. In Yogyakarta and Solo, only 25% of the respondents reported batik making as a family occupation, whereas 37% said their most important reason for working in the batik industry is personal satisfaction. Notably, no workers cited "good income" as a motive.

The labour force in the batik industry is primarily rural based and includes workers employed in village industries and those who emigrate temporarily and permanently to the cities in search of employment. This labour force is growing rapidly, and comprises people who need permanent, full-time employment. Nearly 65% of batik workers do not farm, although 75% of them live in rural areas; 93% own 0.3 ha of rice land or less. Landlessness decreases from urban to rural areas in Java and then to Madura as, conversely, farm employment increases (Table 1).

Traditional rural centres of batik production are almost always located where there is little high-quality rice land and where large-scale irrigation is unfeasible. As population pressure and landlessness increase elsewhere, workers in these areas now face competition from "newcomers" from more fertile areas.

Wages and Income

In our sample, 92% of urban workers were factory based whereas among the rural workers, 70% work at home and only 30% work in factories. Most of those working at home, however, are employed in factory-based production systems.

An overwhelming majority (88%) of the respondents said that they expect to still be doing batik work in 5 years. At the same time, only 40% said that they would encourage their children to become batik workers, the percentage in Madura being nearly double that in rural

Java and triple that in the urban areas. When asked why they would not want their children to work in the batik industry, most gave low income as the primary reason. In the urban areas, where workers' level of education is somewhat higher than for the sample as a whole, some informants objected to the occupation's low status. About 10% of the workers in the Solo area (including nearby rural areas) are concerned about the future of the industry.

Batik workers are employed on a daily, weekly, monthly, or contract basis and may receive a wage or piece-work rate. In the cities, wages are most common (54%), followed by flat rates for contract work (38%) and piece work (8%). In the rural areas on Java, most workers do piece work (69%) and wages are much less common (21%) whereas contracts are nearly unheard of. In Madura, 71% of the workers do piece work and 17% work on a contract basis. Contrary to common assumptions about small-scale industries, only a small number of rural workers in the batik industry are unpaid family members (6%).

Pay scales actually vary from one area to another and pay levels depend on the job itself and whether a man, woman, or child is doing it. Overall, women working in the batik industry receive only 42% of what their male co-workers earn (Table 2). This is of particular significance because almost 30% of the female respondents (compared to only 4% of the men) are single heads of households with an average of three dependants. At the time of the interviews, the average prices of rice, cooking oil, and sugar were IDR 250/kg, IDR 240/L, and IDR 650/kg, respectively. A family of four consuming 40 kg of rice, 8 L of oil, and 4 kg of sugar a month would spend IDR 14,520 just on these staples. Only men in urban factories and in Madura earn, on the average, significantly more than this amount. Women in rural areas on Java actually earn less. (In 1985, about 1100 Indonesian rupiahs [IDR] = 0.45 United States dollars [USD].)

There appears to be a direct relationship between marketing and workers' incomes. In Madura, where marketing is not a problem and the price of batik is relatively high, workers' incomes tend to be higher than in Java. In addition, almost 20% of the workers are paid in advance and only 2% after their work is sold. In contrast, workers in urban Javanese factories reported that they are never paid in advance and half of the workers in Solo had to wait until their work had been

Table 2. Average monthly income from batik work (IDR).[a]

	Women	Men
Java		
Urban	17 417	46 500
Rural	12 760	17 000
Madura	21 348	60 000[b]
Mean	17 175	41 167

[a] 1100 Indonesian rupiahs (IDR) = 1 United States dollar (USD).
[b] Only one informant in the sample.

sold before getting paid. Marketing in urban areas, especially Solo, has become difficult for small- and medium-scale producers because of competition from pseudobatik textiles and commissions of up to 25% demanded by tour companies and freelance guides.

With the exceptions of Tanjungbumi (Madura) and Sanden (rural Java) where work is on a cash basis, most batik workers receive some nonmonetary compensation for their work. The number and kinds of benefits vary from one place to another, but include living at the factory during the week, health-care costs, and holiday bonuses (usually clothing). Meals, when provided, may or may not be deducted from the workers' pay. Employers do not provide transportation to their factories, which is not a problem in rural areas because most workers live in the same or neighbouring villages. But 20% of urban workers use public transportation daily to get to work, and another 12% use it on weekends to return to their villages. When workers make mistakes, the cost may be deducted from their wages or, if they are piece workers, the work is either refused or bought at a reduced price. Many workers are indebted to entrepreneurs and intermediaries and are forced to work at lower-than-normal rates until the debt is repaid.

Problems Faced by Workers in the Batik Industry

Employment Instability

Urban workers in Solo were employed fewer days and fewer hours than workers in either Yogyakarta or the rural areas (Table 3). Slow-downs and lay-offs have become chronic in Solo, the batik-printing centre that has the three largest, pseudobatik producers in Indonesia. In the city of Yogyakarta, where batik printing is still only on a small scale, employment appears to be steadier, although "printed" cloth is sold side-by-side with the original everywhere.

Batik making is not a secondary occupation done in the workers' leisure time. Overall, 86.5% of workers are actively engaged in batik production more than 15 days a month and 88.6% are working 5 or more hours a day (49% work over 7 hours a day). In the rural areas, 93.8 and 79.2% work more than 15 days a month and 95.8 and 87.5% work 5 or

Table 3. Employment stability of batik workers.

	Solo	Yogyakarta	Rural Java	Madura	Total
Days worked/month					
0-6 (%)	8.3	-	-	4.2	2.1
7-14 (%)	33.3	-	6.3	16.7	11.6
Over 14 (%)	58.3	100.0	93.8	79.2	86.5
Hours worked/day					
2-4 (%)	50.0	-	4.2	12.5	11.5
5-7 (%)	33.3	-	47.9	45.8	39.6
Over 7 (%)	16.7	100.0	47.9	41.7	49.0

more hours a day in Java and Madura, respectively. When we consider, in addition, that 75% of the respondents in the rural areas were women who also spend a number of hours each day in household maintenance (e.g., cooking, washing, child care), the importance of the income earned through batik to these households becomes quite obvious.

In spite of the fact that thousands of people depend upon income from employment in the batik industry for their basic needs, employment is rarely secure and income never reliable. Traditionally, seasonal demand for batik has determined the amount produced and, thus, the amount of labour needed at any one time. Demand is greatest before Lebaran and Christmas, after harvests, and during the tourist seasons. Between those times, demand is generally lower. It is lowest after Lebaran and at the end of the dry season when consumer buying power is greatly reduced.

When the demand for batik is low, owners decrease production. Workers who are paid on a piece-rate basis receive less cloth. If they work at home, they can sometimes make up the difference in earnings by taking on additional work from other traders. Workers who earn a wage are often laid off for days, weeks, or months at a time. They receive no benefits during the inactive period. Workers who seek other employment, if such work is available, may not be allowed to return when the operation becomes active again. Nearly all traders reduce production during seasonal slack periods.

The problem of employment instability has increased dramatically with the widespread adoption of labour-saving technology to produce the substitute goods known as batik printing. Large-scale producers have been known to both flood the market with these cheap imitations and to engage in price fixing causing small- and medium-scale producers' stocks to move too slowly. The smaller owners are forced to cut production. Lay-offs due to overstock tend to be longer than seasonal "vacations" and can come at any time of the year, even during the traditional peak production periods.

The introduction of new technology has always resulted in labour displacement within the industry. When the copper stamp (cap) was adopted in the second half of the 19th century under colonial pressure to increase production output, large numbers of female canting workers were replaced by men who could produce as much as several hundred times more cloth per month using the new tool. Today with the rapid growth of the batik-printing industry, both cap and canting workers are being replaced by the new technologies at alarming rates. Although labour displacement due to the adoption of silk-screen and high-technology processes has not been documented, we can infer the results from existing data on employment and productivity.

A 1976 survey by the Directorate General of Textiles reports output by production process, employment, and worker productivity. The introduction of capital-intensive technology increased total output by a factor of 2.35, while worker productivity increased 17.8 times (Table 4). At the same time, these increases hypothetically resulted in the loss of 20,235 jobs. Total production figures for 1938 and 1976 were the same: 105 million metres (Wieringa 1979). In 1938, before the domestic production of batik printing, the batik industry employed 250,000 workers (Kertcher 1952). As many as 100,000 batik workers may have lost jobs as a result of new technology.

Table 4. Output, employment, and worker productivity.

	Jakarta	Yogyakarta
Output (m)		
Printing	26 758 973	-
Cap	5 735 980	12 341 382
Tulis	390	1 484 964
Total	32 495 343	13 826 346
Workers	3 107	23 342
Productivity (m/worker)	10 458	592

Source: Adisasono, 1984. Traditional batik: another victim of development. Paper presented in IDRC pre-project workshop, Denpasar, 3-7 April 1984.

Because of labour displacement and, to a lesser extent, employment instability, the labour force in the batik industry is much larger than the demand for its products. This situation shows no signs of future improvement and so the burden of seeking and keeping employment in the industry falls ever more heavily on the worker whose family already depends upon the income.

Lack of Transferable Skills

The quality of a finished piece of batik is determined by several factors, including design, raw materials, and clarity and harmony of colours but, generally, the most important determinant of overall quality - and price - is the quality of the wax resist. The wax-resist processes used in Indonesian batik require specialized skills. Learning to use the pen-like canting can take from several months to master rudimentary skills to 10 or more years to accomplish the control necessary to make the finest halus batik. This is one reason why girls begin to learn batik making at the age of 6 or 7 years. Younger children are thought to lack the necessary muscle coordination, but if they are much older, they may lack the discipline required to develop good skills. Using a cap well also demands a good deal of skill because the copper tool is heavy and placement of the stamp is done by sight. Several years of experience are usually necessary to develop the strength and accuracy demanded.

The type and duration of a worker's training depend upon location. Women in rural areas usually learn to use the canting from relatives or neighbours because most batik halus work is done in the workers' homes. Training is informal with the new worker helping until her skill is sufficiently developed to begin work on her own. The training period may continue as the worker redefines her newly acquired skills, but she usually has already begun to sell her work. The length of the training period varies greatly according to individual ability and the degree of skill required to produce the type of batik that the worker will sell.

Men who do cap work and women who work in urban batik factories are sometimes trained at the job site. On-site training is highly

desirable for cap work, and previously was the rule, because of the prohibitive cost of the necessary production equipment, but increasingly cap workers are expected to find their own training. Training in a workshop or factory setting usually takes the form of an apprenticeship. Apprentices are not paid, but may receive meals or small amounts of pocket money.

In short, highly specialized skills that require relatively long training periods are necessary for both canting and cap work. Men begin batik work in adolescence as soon as they are strong enough to work with the stamps, whereas women usually begin as children. The majority of batik workers enter the industry when they first work for a wage. Their specialized skills, perfected over a number of years, are not easily transferable to other occupations and, therefore, batik workers are practically and psychologically unprepared to look for other skilled work in times of forced idleness.

Some workers are able to move into batik printing if they live near, or can move to, a production centre, but their number, relative to the batik industry's work force, appears to be small. In only one of the eight research sites (Bayat) did respondents report this shift. Jobs in batik-printing factories are only available to men, the work being considered too heavy and complicated for women. Thus, potential labour absorption is greatly reduced. Because most batik workers see unemployment as their only alternative to working in the batik industry, they will accept low returns to their labour.

Lack of Information About Production and Marketing

The Indonesian batik industry is characterized by a highly developed division of labour in which not only are raw materials supplier, entrepreneur, intermediary, and worker functions separated, but in which each step in the production process is performed by a different individual. Exceptions to the rule are rural intermediary/workers (almost all female), entrepreneurs in the subcontracting system who act as raw materials suppliers to intermediaries, and a small number of artisan/entrepreneurs who are primarily male "artists" catering to the tourist trade.

In the urban, factory-based system, different steps in the production process are typically carried out in different areas of one complex or in separate locations altogether. For example, cap work may be done on one side of the street while dyeing is done on the other side and canting work is sent out on a piece-work basis. Few workers are allowed to master more than one skill and many are not familiar with the entire production process. This system benefits entrepreneurs, but both workers and entrepreneurs defend it by saying that a person can only do work to which she or he is "naturally suited," i.e.,a skilled worker cannot do unskilled work any more than an unskilled worker can do skilled work.

Lack of familiarity with production processes is most pronounced among subcontractors. In the batik industry's version of this infamous arrangement, workers may deal directly with an entrepreneur, but more likely receive raw materials from an intermediary, usually a wealthier neighbour who divides the work among several women with different specialities. Subcontractors are geographically removed from most of the other steps in the production process, especially dyeing (which is

necessary to finish the product). In the extreme and common version of this system, entrepreneurs order only one step in the waxing process from each intermediary with the result that workers in one village, all do the same or similar types of work. For example, women in one hamlet do only the waxing steps before the first dyeing and those in another do the subsequent waxing.

The division of labour has obvious advantages for entrepreneurs. They do not have to fear that intermediaries or workers will become their competitors. With the exception of the most highly skilled canting workers, the amount of available labour is far greater than the demand for it, so employers have little trouble finding workers with only one skill or to perform unskilled jobs. Rural women have the greatest disadvantage because they are farthest from the production centres and their work is accorded the low status of "supplementary employment" no matter how much they actually contribute to household income.

At present, no workers' organizations exist, although such groups did appear in Solo and possibly other areas during the 1950s. Efforts to organize workers are inhibited by several factors including geographic distance and scarcity of employment. No less important is the common association, since 1965, of workers' groups with the banned Indonesian Communist Party.

The division of labour, supported by a strong cultural premise and reinforced by the practice of physically separating different steps in the production process, virtually assures that workers will not be able to improve their position in the industry without outside intervention. In a few cases, government and nongovernmental organization (NGO) assistance in the form of raw materials, training, and credit has helped some workers to master the entire production process. These new independent producers often run into trouble, however, because they still lack access to marketing information, experience, and contacts. As a result, they produce unmarketable goods or depend upon village or other officials to act as marketing agents. Both situations lead quickly to bankruptcy: the former because small-scale producers cannot afford to make mistakes in judgement and the latter because most of the officials are bureaucrats who have no marketing experience. Frequently, rural producers do not know who will eventually buy their products.

Lack of Access to Capital

Workers' earnings remain low because they do not have the skills required to produce finished goods themselves. One of the greatest obstacles faced by workers in the batik industry who hope to become independent producers is access to capital.

Compared to the population as a whole, a disproportionate number of batik workers are orthodox Muslims. In part, this may be explained by a natural preference on the part of Muslim (and Arab) entrepreneurs, who dominate the industry, to employ people of similar religious faith. In Yogyakarta, the batik industry, as we know it, originated in urban, Muslim areas. The population of Madura is nearly all Muslim. The traditional relationship between entrepreneurs and workers contributes as well. In the past, workers adopted the religious practices of their employer-patrons. "Christian" workshops,

although less common, also exist. Unlike the purely economic relations between entrepreneurs and raw materials suppliers, patron-client relations often exist between traders and workers, involving social as well as financial obligations. Since the mid-1960s, the trend on Java has been toward strictly monetary exchanges because the increasing surplus of labour has made it more economical for entrepreneurs to switch to wage labour. Patron-client relations are still quite common, however, wherever subcontracting is used and where women are employed, in general.

Most batik workers are left to their own minimal resources if they hope to become independent producers. Although the government has made some credit available for small-scale businesses, few Muslim workers are willing to openly disregard the Islamic prohibition against borrowing with interest. In rural areas, many workers fear the social as well as financial risks involved in taking formal loans. In rural credit schemes, the borrower must be a landholder, which automatically excludes large numbers of batik workers, especially women. More than half of the workers surveyed in rural Java and Madura are landless (60.4% on Java).

Effects of Child Labour on Education

At present, no statistics on child labour in the batik industry have been documented. In the late 1920s, boys and girls as young as 9 years old were reported working in batik factories in Yogyakarta and Solo. Child labour is still prevalent in the batik industry in both Java and Madura, but it is difficult to estimate how many children are doing batik work both as unpaid family workers and as wage labourers. One reason is that most child workers live in villages and are not counted in surveys, especially if they are of school age. Another reason is that most of these children are girls who do canting work. If their mothers constitute an "invisible" work force, these girls may be said to be doubly invisible being both female and minors. Parents rarely want to admit that their young children are helping to support the family and so they often deny that the batik done by their children is work.

White (1976) has shown that among farming families in a village near Yogyakarta, children's contributions to the household economy over a year were greater than the expenditures for them during the same period. Although child workers receive only half of what adults earn for the same work in the batik industry, economic conditions force large numbers of children from landless and near landless families to become wage labourers while they are still in elementary school. The age at which men and women in the sample entered the batik industry and the level of formal education attained are shown in Table 5.

Although most parents in rural areas would like their children to attend school, economic pressures make it impossible for many to complete even the elementary level. When a choice has to be made between sons and daughters, the male children most often continue because it is thought that they will eventually become heads of households. However, in "batik villages," fewer income opportunities exist for boys. Employment of children in the batik industry supports the intergenerational cycle in which the child leaves school at an early age to earn money and, by having left school to become a batik

Table 5. Age of entry into the batik industry and level of education of batik workers.

	Women	Men
Age (years)		
5-12 (%)	50.0	25
13-18 (%)	38.2	35
19-35 (%)	10.5	30
Over 35 (%)	1.3	10
Education		
No formal education (%)	19.7	5
Some elementary (%)	38.2	15
Completed elementary (%)	34.2	50
Middle school (%)	7.9	20
High school (%)	-	10

worker, greatly reduces her future opportunities. It has particularly negative effects on girls who will be expected to remain in the village afer the birth of their first child.

Occupational Health and Safety

In the batik industry, serious on-the-job accidents occur infrequently and workers rarely report employment-related illnesses. However, workers may not be aware of the long-term effects on their health of some aspects of batik work nor may they be fully informed of the risks involved in certain production processes.

In centralized production, waxing is frequently done in enclosed compounds where the only light and ventilation are provided by small windows. Workers are exposed to fumes from the heated wax, which may irritate their eyes. Eye strain and headaches are common among rural canting workers who often work for several hours at night by candle-light or kerosene lamp. In addition, hot wax causes minor to severe burns.

Cap work is extremely tiring. The stamps themselves are heavy and the work is usually done at a waist-high table. In the course of a single day, the worker may stand for more than 7 hours and lift the cap from wax to cloth hundreds of times. Throughout the industry, drudgery is pervasive. The many litres of water needed for boiling the wax off the cloth and for dyeing often have to be hauled by hand. Workers who scrape wax from partially finished batik stand for many hours at a time with one arm raised to scrape wax from hanging cloth. They are paid a piece rate and so must work as fast as possible. The division of labour actually produces a number of repetitive unskilled tasks such as scraping and filling in small design areas with dye using a brush or bamboo splint.

Dyeing is the most dangerous part of the batik production process. In the past, much batik was dyed using solutions made from plant and vegetable sources, but today the vast majority is treated

with chemical dyestuffs using caustic soda as a fixative. These dyes are sold in concentrated powder form. Although the dye powders contain toxic chemicals, mixing is done without any protection for the workers' lungs. Many dyers complain of skin irritations. They rarely use protective gloves or boots, even when such equipment is available, because they are insufficiently advised that the hindrance to dexterity caused by the protective equipment is far less critical than the health risks posed by the chemicals with which they work.

Factories and dyeing areas often lack adequate drainage. In rural areas, leftover dyebaths and rinses are released directly into a river or the ground surrounding the work areas. In urban factories, discarded liquids may sit in abandoned tubs or spill over into the work area posing a serious hazard to the workers and their families who cook and sleep in the same spaces during the week (12.5% of the urban sample). Families who live in the work area may use the same water to wash dyeing equipment and dishes.

Conclusions

One goal of government policy is to increase off-farm employment. Small-scale industry, including batik, has been singled out for special attention. Assistance is available in the form of credit, raw materials, and training from the government and is supported by some NGOs.

Batik workers in urban areas receive very little attention from the government (Table 6). In the last 10 years, however, some projects have been set up in rural areas to help workers become independent producers. Candidates are selected by local officials, usually village leaders, to participate in training courses and cooperatives. Participation is not open, but it is thought that benefits from the programs will be passed on to other villagers in the form of shared knowledge and increased employment opportunities, i.e., poor villagers can work for their neighbours instead of for entrepreneurs in a nearby town or city.

In practice, the distribution of benefits from these projects can rarely be divided from local politics. Generally, a small group of wealthy and often related villagers is chosen repeatedly. Members of

Table 6. Assistance to batik workers, based on interviews with 96 workers.

	No help	Government	Association	NGO	Other
Java					
Urban	22	1	-	-	1
Rural	36	12	1	-	-
Madura	17	7	-	-	-
Total (%)	78.0	20.8	0.6	0.0	0.6

this group do not necessarily have any experience in the batik industry. Although the assistance may raise the incomes of members of the group, their success is not always shared with other villagers. Competition may intensify because of the added risk involved in producing finished goods. This makes people less likely to share their new knowledge. In some cases, the new independent producers, who can invoke social and familial obligations, pay even lower wages than entrepreneurs in the city. Further, many villagers, who will not take formal loans, borrow money from other villagers at high interest rates. They may be forced to repay their loans in batik work if they fall behind in their payments. Some individual workers clearly benefit from government assistance programs, but they succeed at the expense of other, usually poorer, workers in their villages.

Most government assistance is actually designed for and directed toward entrepreneurs, but the development schemes often affect workers as well. For example, the standardization program developed by the Batik Research Center promotes the homogenization of batik motifs in accordance with domestic market demand. However, the standardization scheme reflects the aesthetic biases of its central Javanese proponents and ignores variations in the regional market for which most batik is made. One part of the program introduces traditional central Javanese motifs and colour combinations to other areas, such as Madura. The central Javanese style is presented as superior to local styles and people in the area receive various incentives to adopt it. Aside from the implications for the survival of local traditions, workers' employment is threatened when entrepreneurs switch to a style that has to compete directly with the original product in an already supersaturated market.

In summary, economic opportunities on Java and Madura may be related to several factors including sex, age, education, and contacts but, in rural areas, microstudies show them to be most clearly related to land ownership. Although size of landholding is an important determinant of socioeconomic status, productivity of the land is less frequently mentioned. Budiono et al. (1982:3) found that larger farm units had a higher proportion of multicropped rice land, implying that village elites have not only more, but better, rice land. The village elite supplement their incomes as entrepreneurs, sometimes aided by government projects, but the landless and near landless remain locked into the least remunerative positions in the batik industry. At the same time, the latter bear the brunt of the combined effects of population pressure, which divides large holdings into small ones that are worked more by family than hired labour; the adoption of less labour-intensive farming methods, such as the use of the sickle, in harvesting; and unchanged total employment (Budiono et al. 1982:178). To improve the welfare of batik workers and their families, the economy of impoverished rural areas must diversify, and batik production must be recognized as a full-time occupation for most of the men, women, and children involved.

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WOMEN'S ROLES IN THE INDONESIAN BATIK INDUSTRY: SOME IMPLICATIONS OF OCCUPATIONAL SEGREGATION IN CRAFTS[1]

by Rebecca Joseph

Batik is a wax-resist method of decorating cloth for everyday and ceremonial use. The Indonesian batik industry has long been a stronghold of indigenous entrepreneurship, while providing nonagricultural employment for the rural poor on the islands of Java and Madura. In 1974, more than 80% of the 182,500 people in the batik work force were women, the majority living in rural areas in the Special Region of Yogyakarta (DIY) and central Java province (1974/75 industrial census, Central Statistics Office). In terms of employment, the batik industry is the third most important small-scale and cottage industry in Java after rice milling and weaving (McCawley 1981:72-73). Although much has been written about Indonesian batik and the batik industry, little has been published concerning women's roles in the industry or the effects of employment in the industry on household income and socioeconomic mobility. (The only two published studies of women in the batik industry are Price (1982) and Wieringa (1981).)

Batik is made by both women and men, but different forms of production restrict some jobs by gender. The historical development of the division of labour in batik making in Java to the present time and the implications of this division by gender for women in the batik industry are examined here. In reviewing women's roles, class is as important as gender in determining activity and income. Therefore, the development strategy of encouraging home-based batik industries in rural areas to generate nonagricultural income for poor women should be reevaluated.

Background

The origin of batik in Java is unclear. However, the canting, a penlike instrument used for applying wax, appears to have been in use by the 12th century (Labin 1979:49). Batik tulis or hand-drawn batik

[1] The primary data in this paper were collected by the author in the Special Region of Yogyakarta (DIY) between 1984 and 1986 with the aid of a Fulbright grant from the U.S. Department of Education and by researchers at Gadjah Mada University in DIY, central Java, and Madura in 1984/85 with a grant from IDRC. Portions of this paper are excerpted from Joseph (1986).

is traditionally made using a canting by dipping the tool's well into a pot of hot wax and then manipulating the angle of the spout to trace a design in wax on the fabric. When the waxing is completed, the cloth is dyed, some or all of the wax is removed, and the process is repeated. Depending on the intricacy of the design, an experienced artisan can take a week to several months to complete one kain (2.5 x 1 m). The most difficult pieces may take up to a year or more.

Batik cap or hand-stamped batik appeared in the middle of the 19th century following the development of a hand-held copper stamp (cap) that could reproduce batik tulis patterns. The main advantage of the new technology was that it shortened the time used in the waxing process. By using the cap to make a block print, an experienced stamper could turn out as many as 20 kain a day, thereby increasing total output and reducing production time per piece to less than 1 week.

Since the late 1960s, the Indonesian government has aimed a number of policies at rapid economic growth. A favourable investment climate has led to major expansion of the capital-intensive textile sector that produces low-priced batik imitations (batik printing) as well as woven cloth. Competition from these mass-produced substitutes, combined with a shift in consumer taste away from traditional patterns and styles, has resulted in the decline of labour-intensive batik production. In some areas, as few as 10% of the batik enterprises registered with the Department of Industry in 1970 were active in 1984 (Simandjuntak 1982:73-83; Anonymous 1984:6; Asik 1984:6). Nonetheless, development projects with a "women's component" train rural women in batik-making skills in the hope that the additional income will raise their families' standard of living without forcing them to work outside of the home.

Historical Development of the Division of Labour

Before 1850, all batik was made using the canting method. In the court centres of central Java, batik making was the prerogative of aristocratic women who produced high-quality batik tulis for personal and court use. In other parts of Java, rural women made batik tulis for household use during periods of low agricultural activity. Whether batik was a folk art in Yogyakarta and Surakarta before being adopted by the elite is unknown but, until the end of the 19th century, its production and use in those areas were regulated by the royal courts.

Although evidence exists that men were skilled batik tulis artisans in the Cirebon area, the canting is generally considered a female tool and the making of batik tulis "women's work" because the concentration, patience, attention to detail, and manual dexterity required are culturally classified as female traits. Moreover, batik making is traditionally thought to be related more to an individual's character than to natural ability. Especially in central Java, character was closely linked to station at birth, hence the idea that only high-ranking women could and should make batik tulis.

Learning batik was thought to be necessary spiritual as well as practical training for young girls of the upper class. For adult women, batik making filled the long periods of seclusion that their high status required. Doing the finer ngengreng work themselves (the

first waxing step when the main motifs are outlined and filled in with fine patterns), the less-detailed processes were relegated to servants or common artisans. Rijcklof von Goens, the Dutch Governor General from 1678 to 1681, reported thousands of women making batik within the palace grounds (Hawkins 1961:40). Later, some enterprising women took orders for their work to supplement income from their husbands' high status, but low paying, positions at the courts. Production was limited to individual orders often placed 6 months to 1 year in advance. Entrepreneurial activity was considered acceptable for women of high status, but demeaning to men of similar rank.

The making of batik tulis in rural areas was closely related to the agricultural cycle. In areas of Java beyond the control of the Yogyakarta and Solo sultanates where farming did not meet the subsistence needs of the population, cottage industries developed. In some areas on the north coast of Java and Madura, women's batik work supplemented men's maritime activities. In central Java, cottage batik industries developed in rural areas toward the end of the 19th century in villages where court retainers were assigned for extended periods, skills being transferred from their wives to other women in the community. (For a detailed discussion of one of these villages, see Joseph [in press].) Production generally continued on a part-time, customer-demand basis and occasional surpluses were traded by the batik maker or a neighbour at local markets. During planting and harvesting, batik work was temporarily put aside except by those too old or too young to work in the fields.

Making batik tulis as a full-time occupation probably began in the late 19th century when population increases and the leasing of peasant-owned land to foreign interests created severe pressure on land resources. Evidence from central Java and the north coast suggests that with this shift, production tasks within rural cottage industries became specialized. Spinners, weavers, and batik makers located in one or more villages formed interdependent networks with occupations usually passed through the female line. Dyeing, in particular, was considered a magically dangerous activity and, thus, only entrusted to an individual with hereditary rights (Loeden-Heringa personal communication). Until this time, rural men were involved occasionally in batik tulis production when they assisted their wives. After about 1900, men in some isolated villages in the Yogyakarta region where agricultural land was scarce become batik makers as well. In most cases, they did the less-refined canting work, but some reportedly became quite skilled.

Changes in the economic policies of the Dutch colonial government after 1850 commercialized batik making with a factory-based production system that quickly subsumed older forms of production. Traditional cottage industry batik continued in isolated areas for a number of years and still exists in the Tuban district, although there are now signs of encroaching commercialization. Similarly, court batik is still made by a few older women in the palaces. The several remaining traditional enterprises are well known among connoisseurs of fine batik for their high-quality kain (Joseph 1986:32-36).

In addition to creating a large labour surplus in rural areas, leasing agricultural land on Java to private investors led to urbanization and the expansion of roads and railways which, in turn, created new markets for potential batik entrepreneurs: rural peasants

in previously isolated areas and new city dwellers who preferred purchased to homemade clothing. Both groups had little purchasing power. Thus, for batik to be affordable, it had to be "mass-produced."

The factory-based system differs from traditional court and home-based cottage industry production in several ways. First, production is on a larger scale and dependent upon hired labour. Second, the division of labour in the factory-based system is highly developed to minimize costs and allow production to decentralize through subcontracting. Third, until recently, capital was controlled by middle-class, urban entrepreneurs because their easy access to traders and transportation facilitated marketing.

Batik tulis enterprises were usually directed by women. The feudal patron-client relationship existed between the owner and workers. The owner took responsibility for the worker's welfare in exchange for her and her family's labour. In addition to making batik, workers employed at the owner's home acted as household servants. Originally, the women employed in these enterprises may have received allowances rather than wages.

The patron-client pattern has declined in the last 20 years as competition has forced entrepreneurs to reduce production costs, but vestiges of the old system remain. Live-in workers must ask permission to leave the premises and are expected to help in the kitchen or serve guests on ceremonial occasions. Outworkers may be asked to supply the entrepreneur with fruit in season or food specialties from their villages. At the same time, entrepreneurs respond that they treat their employees "as family" when asked about labour relations in their establishments.

Unlike batik tulis, batik cap was factory produced and employed wage labour from the very beginning, partly because of the characteristics of the stamp technology. Whereas the canting is cheap, portable, and easily replaced, the copper stamps used in batik cap must be made by a highly skilled artisan and take several weeks to complete. Because a single pattern requires four to eight stamps, including the mirror images used to wax the reverse side of the cloth, production is comparatively capital intensive. More importantly, the stamps used for one batik cap necessitate centralized production with high division of labour because large quantities of cloth must be completed quickly to be profitable.

Cap work has always been done by men. This is generally justified on the grounds that stamping is too physically demanding for women. With the adoption of the cap, however, several other processes, previously performed by women, such as dyeing and wax removal, were taken over by men in the factory-based production system. In addition, men replaced women as batik entrepreneurs in many batik cap factories where orthodox Muslim views proscribed women's direct supervision of male workers.

The establishment of factory-based production led to widespread use of subcontracting arrangements. These entail the exchange of inputs and cash for work completed in one or more steps in the batik production process. Inputs, either raw materials or partially finished cloth, are supplied by the entrepreneur to an intermediary (on Java, usually a woman; on Madura, usually a man) who returns to her village

and distributes the work among her neighbours, often leaving some for herself. She returns to the entrepreneur with the finished work. At that time, partial payment is made for the completed work and a new supply of inputs is given.

Subcontracting is especially common in batik tulis production. It is also found in batik cap production in connection with a labour-saving technique in the dyeing process whereby small areas of colour are painted onto the cloth prior to dyeing the main colour(s). Because these tasks involve the use of the canting and unskilled labour, most home-based workers are women and children.

In summary, women in the factory-based system predominate in those aspects of batik production that involve home-based work, supervision of other women, and use of the canting. They outnumber men in all roles related to batik tulis production, i.e., as workers (except dyers), intermediaries, and entrepreneurs. In contrast, centralized production by male workers for male entrepreneurs is the norm in batik cap.

The Ideology of Skill

A serene Javanese woman sitting on a low stool with canting in hand, a stove at her side, and a partially waxed cloth before her is the most popular image of batik making in Indonesia. She embodies such "female" traits as concentration and attention to detail. Another common image is the shirtless man standing over a cap table stamping cloth after cloth in the heat of a dimly lit enclosed workshop. His activity manifests such "male" traits as the proclivity for heavy physical work. Both images are based on gender role stereotypes. Less obviously, they also represent stereotypical class distinctions.

The division of labour in traditional batik tulis production clearly was based on heredity and class. In rural areas, a rudimentary division of labour evolved in which specializations were passed from mother to daughter. Dyeing was reserved for women of high status because of its magical dangers. In the court centres, high-status noblewomen made batik as a leisure activity. They performed only the most refined steps in the production process whereas the less-detailed tasks were given to low-status servants and artisans.

In the factory-based system, division of labour and remuneration were based on three levels of skill: cap workers who constitute skilled labour, dyers and wax removers who are considered semiskilled, and canting workers who are considered unskilled labour. Because these processes are also gender specific, women's work is far less remunerative than men's. In 1985, women earned an average of IDR 500/day compared to men's IDR 1050 daily income from batik work (in 1985, approximately 1100 Indonesian rupiahs [IDR] = 1 United States dollar [USD]). Women working in their homes earned even less.

So-called innate characteristics are most commonly used to justify the division of labour by gender in batik production. With the exception of stamping, however, all processes performed by men in the factory-based production system were done by women in the traditional home-based systems (Table 1).

Table 1. Division of labour by gender in home- and factory-based batik production.

Process	Home-based	Factory-based
Pattern design	F[a]	M[a]
Cloth cutting	F	F, M
Cloth preparation	F	F
Design drawing	F	F[b]
First waxing	F	F, M (canting) M (cap)
Second waxing	F	F, M (canting) M (cap)
First dyeing	F	M
Scraping	F	M
Third waxing	F	F, M (canting) M (cap)
Second dyeing	F	M
Boiling	F	M
Finishing	F	F
Sewing[c]	-	M, F
Packaging	-	F

[a] F = female; M = male.

[b] Only applies to batik tulis. Often omitted with familiar patterns.

[c] Nontraditional products only (e.g., tablecloths, men's shirts).

Because of its genesis in their traditional domestic roles, canting work performed by women is easily dismissed by entrepreneurs as a part-time activity suited to women's "natural abilities" and, therefore, requiring practice but no specialized skills. In contrast, cap work is considered skilled because it demands concentration and patience, characteristics not normally attributed to men. Women, however, are prevented from becoming cap workers or assuming other "male" occupations in the factory-based production system because they supposedly lack the necessary physical strength. (Javanese women's capacity for physical labour is obvious to anyone who has seen women carrying rocks used in construction or huge sacks of paddy from the fields at harvest time.) The spurious rhetoric of this argument is underscored by the fact that Javanese men of high status avoid manual labour of any kind because it is thought to be demeaning.

Men's involvement in canting work further reveals how gender stereotypes are manipulated to exploit women's labour in the batik industry. Since the late 1960s, a number of young men in Yogyakarta have taken up canting work to take advantage of the tourist market for "batik painting." Doing the dyeing and simple framing themselves, they often charge from IDR 4000 to more than IDR 75,000 for these nontraditional products. "Batik paintings" generally take less than 1 week to complete. Women are sometimes employed by male "artists" to do canting work only, for which they are paid, on a piece-rate basis approximately IDR 500/day.

The division of labour in nonproduction aspects of the factory-based system is similarly based on the assumption that skilled positions should be held by men, unskilled jobs by women. Men are rarely found in retail sales. Moreover, few women work in higher-paying jobs that require specialized training such as designing and accounting. Women's absence from skilled positions is partly explained by the small number of qualified women relative to men. However, given the strong prejudice about different types of work for women and men, it is likely that, even if more women were trained in bookkeeping, export marketing, etc., relatively few would succeed in finding jobs in the industry.

Agriculture and Employment in the Batik Industry

Rural development in Indonesia is nearly synonymous with the Green Revolution or Revolusi Hijau that has been remarkably successful in increasing agricultural productivity, especially in fertile areas on Java. Rice production alone has grown from 11.1 x 10^6 t in 1969 to 23.9 x 10^6 t in 1985 (Glassburner 1986:23). The Green Revolution has also brought about rapid social and economic change with substantial impact on regional batik industries.

Rice cultivation is labour intensive, using male, female, adult, and child labour. Rice-farming activities are largely gender specific and consistent with cultural conceptions of appropriateness. Men perform the "heavy" jobs, e.g., repairing the rice terraces and plowing. Transplanting and harvesting, which are "women's" activities, are somewhat less strenuous but require greater concentration. Both men and women weed and prepare seedlings for transplanting. Weeding is ongoing; who weeds on any given day depends on family members' concurrent activities. The division of labour in dry-land and house-plot cultivation follows a similar pattern. Children who work in the fields are usually girls who assist in "women's activities." Young boys more commonly collect firewood and tend livestock.

When landholdings are small, most of the labour in cultivation is performed by family members (Penny and Singarimbun 1973; Bundiono et al. 1982). In the past, relatives and neighbours often assisted each other in the fields, even when family labour was sufficient, to reduce risks and ensure help in the future. Women who helped transplant, for example, were guaranteed an opportunity to harvest for which they received a share of what they reaped. Similarly, inviting women to harvest guaranteed a reciprocal invitation from the women who accepted. Women who benefited from this mutual assistance were from landowning households. By offering future opportunities to harvest to other landowners, they ensured their own income from agriculture. Even with labour exchange, up to several hundred women per hectare were needed for harvesting. This provided an important opportunity for landless and near landless women to benefit from the harvest. In the last 30 years, this system has been largely replaced; the new practice of hiring labourers creates some additional opportunities for poor women.

Several studies report that women spend fewer hours engaged in agricultural activities than men (Sajogyo 1982:148-149; Koentjaraningrat 1984:175-186). This is explained by the division of labour. Women's primary activities, transplanting and harvesting, must

be completed quickly and, thus, involve many women for a short period. In contrast, men's labour is concentrated in activities subject to broader time constraints. Fewer men are needed to perform these tasks and they work comparatively longer in terms of both hours and days than women involved in transplanting and harvesting. Nonetheless, both men and women spend relatively little time on agriculture: only 5-10% of available family labour days with a few additional days on other crops and livestock (Budiono et al. 1982:126-128).

Changes in agricultural technology (e.g., high-yielding crop varieties, mechanical rice hullers) disproportionately benefit medium and large landowners, with average household income increasing with farm size and in proportion to the amount of irrigated rice land. At the same time, employment opportunities for landless and near landless women have diminished substantially. Jobs lost by women after mechanical rice hullers were introduced are estimated at 1.2 million with loss of income totaling USD 50 million annually or 125 million women days of labour (Collier et al. 1974:106-120; Cain 1981: 127-137). The change from the traditional share system of harvesting in which large groups of women work for a portion of their yield to a system in which the harvest is contracted out to an intermediary who hires a small group of workers for a daily wage has reduced the number of harvesters per hectare. The replacement of the finger blade by the sickle has further reduced the number of harvesters required. Because the sickle is used almost exclusively by men, its popularity further limits poor women's participation in what was traditionally their most important source of employment (Sajogyo and Stoler 1977; Budiono et al. 1982:40-58). The Green Revolution, therefore, has led to increasing income disparities in rural Java.

In the late 1960s and early 1970s, a number of landowners in the Special Region of Yogyakarta and central Java started small batik businesses with the capital accumulated from cultivating paddy as a cash crop. As in urban areas, batik tulis enterprises are generally managed by women, batik cap businesses by men. When both are produced, the owner may be male or female. These enterprises mainly produce low-quality batik tulis and batik cap for sale within the region. The owners employ mostly poorer relatives, but also some nonfamily members, often those in the employ of the owner as agricultural labourers. Profits from the batik business are reinvested in agricultural inputs or other enterprises, or may be used to purchase consumption goods such as motorcycles, gold jewelry, or radio/cassette recorders.

Rural batik enterprises provide off-farm employment opportunities in rural areas, but they tend to reinforce socioeconomic stratification within the village. Landowning village elites invoke social and economic obligations to reduce labour costs and thereby strengthen their already powerful position by operating a successful batik business. Landless and near landless villagers are rarely able to accumulate sufficient capital from farming or batik work to become small-scale entrepreneurs.

Labour requirements of the batik industry (including the newer rural enterprises) are high for about 5 months of the year and moderate to low during the other 7 months. The high and low productivity months are not necessarily sequential because consumption

patterns are closely tied to the yearly agricultural and ritual cycles. In rural areas, batik purchases increase following the major harvests. Before the introduction of high-yielding varieties, a large rice crop was harvested in June or July and secondary crops in August and September. Now two large rice harvests a year are common in irrigated areas followed by secondary crops during the dry season (July-September). Demand for batik rises before Lebaran, the Muslim feast at the end of the fasting month of Ramadan, and during the months favoured for weddings, Ruwah and Besar, because traditional costumes are worn for ceremonial occasions (97% of the Javanese are Muslim). Occasionally, the peak demand for batik labour occurs at the same time as a harvest. A temporary shortage of batik workers may result in some rural areas because agricultural activities take precedence over other productive employment.

Because fewer and less profitable opportunities exist in the agricultural sector, more women are seeking employment in nonagricultural sectors of the economy, especially petty commodity trading and small-scale craft and food-processing industries (Milone 1978; Oey 1985:16-41). A number of these women are entering the batik industry as intermediaries, canting artisans, and unskilled workers. Their primary motivation for seeking employment in the industry is economic. However, the flood of new batik workers into an unstable labour market suppresses wages and jeopardizes employment for those women already in the industry. Amidst the over supply of labour, highly skilled canting workers are scarce. This suggests that women remain in the industry because they lack more remunerative alternatives.

Many rural men are leaving the agricultural sector voluntarily, especially in areas unsuited to intensive rice farming. Male outmigration may be either temporary or permanent and remittances from males employed outside the village vary greatly because of employment available to men with low levels of formal education. In some skilled jobs, such as stone masonry, wages are relatively high (up to IDR 5000/day), but employment is sporadic and requires personal connections with a contractor. Most of the available opportunities are low paying. Pedicab drivers earn about IDR 600/day; unskilled labourers average IDR 750/day. (These wage rates were recorded in Yogyakarta and central Java in December 1984.) Male outmigration also contributes to the rise in female-headed households, shown to be among the poorest in the rural areas (Sigit 1985:55-58).

The shift in male employment patterns from subsistence agriculture to wage labour outside the village increases the importance of women's contribution to household income because of poor men's limited access to steady, lucrative employment. Where opportunities exist, women may enter the batik industry for the first time or switch from part-time to full-time production, which is rarely accompanied by a reduction in household responsibilites, especially for home-based workers. The result is a double burden on poor women who must support their families in addition to performing housework, food preparation, and childrearing tasks. Its effects are felt most strongly by women with no school age daughters to share household labour.

In addition to affecting the work patterns of rural men and women, changes in the agricultural sector have influenced consumer demand for batik products in rural areas. Most batik buyers in these

areas are women who dress in the traditional kain and kebaya. As in the cities, men prefer batik shirts for formal occasions. The price of even low-quality batik is already too high for most potential rural buyers. One hand-drawn kain of the lowest quality cost approximately IDR 4500 or the equivalent of 20 kg of rice at 1985 prices. As income-producing opportunities have decreased in the agricultural sector, fewer rural households have been able to afford batik (Booth and Sundrum 1981:181-195). Instead, they purchase less-expensive pseudobatik (batik printing) or synthetic textiles.

In general, domestic demand for batik products, and thus batik labour, has been decreasing steadily since the late 1960s. At the same time, changes in the agricultural sector have created a large surplus of female labour in rural areas. Many women in traditional "batik villages" are now attempting to shift from seasonal to full-time batik production as a means of replacing income lost from harvesting. Women from other areas are seeking employment in the industry for similar reasons. Several government projects provide assistance to prospective batik entrepreneurs in the hope that they will provide more income-earning opportunities for other women in their villages. Developed within the framework of social welfare goals, these projects tend to ignore women's work within the context of the batik industry as a whole.

Batik Production in the Village Context: The Case of Wukirsari

Wukirsari village, 17 km south of Yogyakarta, is well known for traditional Javanese textiles. In the past, local artisans wove lurik cloth, practiced the tie-dye techniques tritik and plangi, and made high-quality, hand-drawn batik (batik tulis halus) (Larsen et al. 1976; Wahyono 1981). Today, the village is known primarily as a batik tulis centre.

In 1984, Wukirsari had 12,238 inhabitants residing in 2426 households with a population density of 816 persons/km^2; 79% of the households were headed by men, 21% by women. Good agricultural land is in short supply because the village lies adjacent to a large chalk formation. There are 643.3 ha of dry fields unsuitable for paddy cultivation and 213.6 ha of rice fields, of which only 38 ha are irrigated. Much of the area is subject to yearly flash floods. Only 45% of the village households own land, mostly house plots. Rice land is owned by 8%, but only one household owns more than 0.5 ha; 11% of land-owning households have dry fields, of which more than 80% are 0.5 ha or smaller.

Farming does not provide sufficient income for most families in the village. Local residents, however, work in small-scale industries, such as batik tulis, leather puppets, clay roof tiles, machine embroidery, and baskets. With the exception of batik making, the owners of these enterprises are local people with production organized on a cottage industry and small workshop basis. Other residents find work as traders, semi- or unskilled labourers, or food vendors. A small number are civil servants or have private businesses such as transport and livestock.

Making traditional textiles is not a new occupation for women in this area. Until the 1950s, most women involved in textile production

wove lurik on back-tension looms for personal use and sale in the adjacent district. Before World War II, some women were professional spinners. Batik making was restricted to members of court-appointed officials' households who waxed cloths under the direction of the highest offical's wife (Prawirawinarsa 1921:8). After 1955, weaving quickly declined because several batik makers began working as intermediaries for entrepreneurs in Yogyakarta, recruiting their neighbours as home-based workers. The women were attracted to the higher wages paid for batik and soon stopped weaving. Because the area was isolated and lacked employment alternatives, some men became batik makers as well. The situation remained nearly unchanged for 20 years with a few intermediaries and many home-based workers. In the late 1970s, the expansion of public transportation to the area made it possible for more women to become intermediaries. Those who could afford to, sold their work directly to entrepreneurs in the city. Men stopped doing canting work in the early 1980s when employment as casual and semiskilled labourers became available in the city and nearby districts.

To become intermediaries, batik workers needed capital to invest in wages and raw materials. This comes from a variety of sources, including sales of agricultural surplus, a husband's or other household member's salary, or, most commonly, loans from relatives. Women and men in this village rarely borrow from formal credit schemes available through the village cooperative (KUD) or directly from government banks. As religious Muslims, they face social censure if they openly break the prohibition against borrowing with interest. Many would even be reluctant to borrow if interest-free loans were offered because they fear that their land will be seized if they are unable to repay the loans.

Not all villagers who try to become intermediaries are successful. Regular trading relationships with several entrepreneurs in the city are necessary. Women whose mothers were intermediaries have a distinct advantage. As the connecting link in the production chain, intermediaries take the greatest risk. If they are not sufficiently astute, they quickly find themselves indebted to the entrepreneurs. They usually pay workers in full on completion of each piece and do not like to withhold wages for too long because their workers are also their relatives and neighbours. Several intermediaries exist for each quality of product and workers are free to take work from whomever they choose. In addition, two intermediaries deal in medium- and low-quality batik only. When there is more than one batik worker in a household, they often work for different people.

In 1982, Wukirsari was one of 12 villages in 9 provinces chosen for a joint P2WIK-UNDP project. From 1981 to 1984, the United Nations Development Programme (UNDP) contributed USD 500,000 to the P2WIK program with an additional USD 32,000 (IDR 27,505,000) in funding from the Indonesian government in 1982/83 to support projects in P2WIK-UNDP villages. P2WIK projects funded solely by the government are in 116 other villages in 16 provinces. In Wukirsari, a batik project was established by the Department of Industry using P2WIK-UNDP funds to enable local women to become independent batik producers.

The P2WIK-UNDP program was conceived as a community development project with home-based craft industries as its entry point and women as its target. The initial plan was to involve 288 women in the 12

project villages, but the unofficial number of participants in 1984 was more than twice that many. Planning takes place at the central and regional levels with local "motivators" trained to act as liaisons between project participants and government officials. An important aspect of the program is coordination with other village-level development projects. It is affiliated with the Healthy and Prosperous Family Program (PKK), a national program aimed at increasing the social welfare of rural families by educating women and strengthening their homemaking skills.

From the beginning, the program has emphasized activity at the grass-roots level. Local women were recruited as motivators with 2-year contracts to supervise the formation and functioning of cooperative groups until leaders from within the group were ready to take over. In addition to passing on information about production methods, processing of raw materials, capital formation, and joint marketing, the motivators were expected to counsel project participants in social welfare matters such as family planning, education, and nutrition. Initial supplies of raw materials, equipment, and tools were provided by the central administration, as were occasional consultants who provided advice on product design and marketing.

Wukirsari was chosen for a P2WIK-UNDP project because of its high population density, low per-capita income, and poor agricultural prospects. About 800 households are dependent on batik tulis production for all or part of their cash income. The P2WIK-UNDP directors believed that women in this area could use the program to increase their households' income without conflicting with their role as housewives (Noorchayati 1984). Twenty-six women were chosen to participate in the project by the village head and his wife, who is the officially recognized leader of all village-level women's groups. In keeping with the program's requirements, two high school graduates who are active in community affairs were recruited by the village head as motivators and sent to Jakarta for training in cooperative management and basic business skills. Other women were invited on the basis of their potential to become entrepreneurs as judged by the village head and his wife. The primary criteria in the selection process were proven support of government development efforts and access to financial resources.

The women were organized into a cooperative (kelompok) with a coordinator, treasurer, and secretary selected by the members. The village head's wife does not hold office nor is she directly involved in batik production, but she plays a prominent role in the group's affairs. In addition to its batik-related activities, the group maintains a savings and loan scheme and a monthly lottery. Most of the members had previous experience with batik making as workers or intermediaries, but not as an entrepreneur. A number of the women are active in the PKK, Dharma Wanita (the national association of civil servants' wives), and other government-sponsored village organizations. Some women were initially reluctant to join the project because their husbands feared it would take time away from their household responsibilities.

As well as raising participants' incomes, the Wukirsari project aimed to increase quality and productivity, develop cooperation among members, and expand marketing networks to retail outlets both within

and beyond the region. The kelompok was provided with training, equipment, raw materials, and advice on product design and marketing. The most important of these were raw materials and training in the naphthol dyeing process. Cloth and dyestuffs were given free at first and subsidized later because lack of capital was a major obstacle for almost all of the women. Mastery of the dyeing process enabled the members to control the entire production themselves rather than having to bring partly finished cloths to entrepreneurs in Imogiri or Yogyakarta for dyeing. At first, dyeing was done together at the house of the village head under his wife's supervision. As the members became more proficient and the group larger, the kelompok split into five smaller working groups, four of which are still active.

At the start of the project, no finished batik was being produced in Wukirsari. Each of the four small groups, producing continuously, has the capacity to turn out approximately 20 hand-drawn, medium- to high-quality kain or their equivalent per month. In addition to traditional garments, group members now produce cloth for men's shirts, tablecloths, pillow covers, and scarves. Two of the working groups have experimented with nontraditional colours.

Marketing continues to be a major problem even though both quality and productivity have increased. After removing the urban entrepreneur from the production chain, the women did not know how and where to market their finished batik. Because most of their output is either medium- or high-quality traditional garments, the local market is limited. The program director and regional coordinator have arranged for the group's work to be shown at exhibits and have brought in buyers from Jakarta and official tour groups. They have also arranged for the group to be covered occasionally on television, in women's magazines, and in local newspapers.

Although they appreciate official and informal marketing efforts on their behalf, many kelompok members feel frustrated with their inability to develop secure markets for their products. They would like the Department of Industry to offer more assistance with marketing without the long delays that frequently occur between submitting their work and receiving payment. The regional coordinator at the Department of Industry tells them that their work would be more marketable if it were of higher quality. In fact, some members contribute only those pieces of batik that they cannot sell on their own. This represents a conscious undermining of the group which they feel does not meet their needs.

Kelompok members are encouraged to accept orders from the well-known entrepreneurs introduced to them by government representatives and to accept negotiations made on their behalf as subcontractors. These arrangements are often less profitable than marketing on their own. For example, one of the most active subcontractors reports that it is difficult to find workers willing to do the detailed patterns sent by a well-known Jakarta designer. To get the work done, she often has to go to a neighbouring village where wage rates are higher. After expenses, her profit is only IDR 1500 for a 3-m length whereas she makes IDR 5000-10,000 on work she markets herself.

The women are reluctant to reject proposals made by their official benefactors even when the outcome proves unsatisfactory. They

clearly recognize and subconsciously resent their dependent position in the patronage system implicit in the project. In exchange for the assistance they receive, women in the group are expected to accept all directives from the authorities involved. These include hosting large groups of official visitors and subcontracting to large-scale, urban entrepreneurs. Most of the women would feel less threatened if only the Department of Industry were involved. Because the project must be integrated with other village-level programs, the village head and his wife have played an active role since its inception. The village head is eager for the project to appear successful, i.e., harmonious, to higher officials to promote the image of Wukirsari as progressive and modern. The women justifiably fear that disagreement with the project administrators would have negative effects on their households' access to power in the community and to future assistance from government programs.

Membership in the batik makers' group is by invitation only. New members must be nominated by a current member and be accepted by both the group and the village head's wife. Reported membership of the kelompok is 38 women who employ 166 home-based (female) workers. Several of the original members are no longer active because they could not afford to spend the time away from home required by kelompok activities. One women resettled on another island and one lost interest after becoming a successful entrepreneur. Workers employed by kelompok members can join the group but are rarely invited to do so.

Only five women have become independent producers. Each of these women is also the head of one of the working groups and at some time served as an officer in the kelompok. Three of these women have relatives in other areas who have access to secure markets. The fourth combines subcontracting for a Jakarta designer with independent marketing. The fifth sells her work primarily to visitors. Other kelompok members work as wage labourers for the most successful women or depend on their activities as intermediaries, producing finished batik only when there is a kelompok order.

The hamlet of Giriloyo has the highest concentration of batik makers (600) and project participants (half of the original kelompok members) in Wukirsari. Virtually all women and girls above the age of 7 years produce semifinished batik. The amount of time devoted to batik making per day depends upon the worker's other responsibilities. Intermediaries make batik as well as trade semifinished cloths. The village does not have electricity but it is common for batik making to continue until 10 or 11 p.m. Girls who are still in school begin in the early afternoon and finish at dusk, working to pay for their school fees and uniforms.

Aminah is typical of batik makers in Giriloyo/Wukirsari. She is 30 years old and completed 6 years of primary school. She has one daughter who is 6 months old. Her first child, also a girl, died at age 4 years of "fever." Aminah and her husband, 35, support their household through a variety of economic activities. Her primary activity is making batik. She waxes two pieces of medium-quality batik a month that she sells to one of the village's entrepreneurs at a reduced price while she repays the debt incurred for her daughter's funeral. One week each month she assists the entrepreneur with dyeing and scraping.

Her husband farms the 0.2 ha of rice land they recently inherited in addition to plowing fields for other farmers. Aminah works with two hired labourers in their fields during planting and harvesting. In 1985, they harvested 150 kg of rice that they consumed themselves. They also grew mung and string beans. However, income from the sale of their surplus (IDR 7000) was negated by the cost of inputs for their failed peanut crop (IDR 10,000). Twice a month, Aminah's husband sells firewood that he collects on the hillsides above the village at the market in Imogiri (3 km away). For each trip to the market, he brings home an additional IDR 1000.

On average, Aminah's family spends IDR 17,650/month, 78% on food (Table 2). They regularly contribute small sums to various village organizations such as the mosque fund and the village treasury. At weddings and funerals, they give a modest IDR 1500. Aminah, her husband, and daughter buy new clothes only once a year before Lebaran. Notably, all of Aminah's household's assets are in the traditional forms of gold, animals, and land. With the exception of the two cows that her husband uses in plowing and a small vegetable crop cultivated during the dry season, these assets are not income producing. There are no luxury goods, such as radios, sewing machines, or vehicles, in this household.

Aminah handles all of the money in her household. Their precarious financial position was worsened recently by the expenditure required for the funeral of her elder daughter. She borrowed the money needed for feeding the mourners, a traditional Javanese custom, and repays it by selling her batik work at a reduced price to the entrepreneur who made the loan. The terms of this loan now make her short of cash for daily necessities. The family's average monthly needs surpass their income by IDR 2600 which she borrows from her in-laws. If their situation deteriorates further, she will be forced to sell their assets.

Batik workers' mean monthly income in Wukirsari (including Giriloyo) in January 1985 was IDR 7924. Aminah's income would be higher than the average were she not repaying a debt because most women make low-paying, low-quality batik whereas she makes the more remunerative medium-quality batik. Nevertheless, her household is typical of the lower stratum of batik workers, about 45% of the batik-making households in the village. The mean monthly income for all batik workers' households is IDR 51,055. Most of the higher-income households have a greater number of employed members, often in a comparatively high-paying job, e.g., house building or public service. Households that are dependent on income from batik combined with subsistence agriculture or earnings from agricultural labour as their primary source of sustenance tend to be those of the lower economic stratum.

Intermediaries clearly have an economic advantage in this village. Their mean monthly income from batik trading alone is IDR 48,834, not much less than the batik workers' mean household income. Their earnings are more than enough to cover their household expenses, and they spend an average of IDR 34,925/month on household needs, more than twice what Aminah spends.

The average intermediary spends IDR 102,000/month on her business activities (Table 3). This figure includes household expenses, which

Table 2. Income, expenditures, and assets in a batik worker's household, 1985.

	Amount (IDR)[a]	Frequency
Income		
Wife's semifinished batik sold to village entrepreneur	2500/piece	2/month
Wife assisting entrepreneur with dyeing	250/day	7/month
Wife selling chickens	2000/head	3/year
Husband selling firewood at local market	1000/day	2/month
Sale of surplus mung and green beans	7000	1/year
Husband plowing	3000/day	21/year
Expenditures		
Rice	3375	1/month
Food	10000	1/month
Clothing	15000	1/year
Travel to Yogyarkarta	1000	2/month
Gifts at ceremonies, rituals	1500	5/year
PKK, mosque fund, village fund	100	4/month
Agricultural inputs and wages to labourers	13000	1/year
Child's funeral	44140	Once
Assets		
1 bamboo walled house	200000	
1 house plot, 0.1 ha	300000	
1 plot of irrigated rice land, 0.2 ha	600000	
10 g gold jewelry	115000	
2 cows	600000	
2 goats	80000	
7 chickens	14000	
Average monthly income	15083	
Average monthly expenditures	17650	
Total assets	1909000	

[a] In 1985, IDR 1100 = USD 1, approximately.

women in this village do not separate from other expenditures. Cloth constitutes only a small percentage of their expenses because most intermediaries operate solely on a subcontracting basis in which a fresh supply of cloth is exchanged for the waxed pieces and partial payment for the work. The largest expenditures are for wax and wages. Waxes are not usually supplied by urban entrepreneurs because of the frequency of pilferage. On average, IDR 39,350/month was spent on wages in 1984. Intermediaries may also retail raw materials and tools that they buy in the city. Workers supply their own tools. Occasion-

Table 3. Average monthly expenditures (IDR) of intermediaries and project-assisted entrepreneurs in Wukirsari.

	Intermediary	Entrepreneur
Cloth (mori)	3 617	90 015
Dyestuffs	-	23 693
Wax	24 317	18 753
Wages	39 350	17 496
Firewood	-	3 752
Household expenses	34 925	74 991
Total expenditures	102 209	228 700

ally, they must buy wax themselves. Firewood was acquired by the workers, usually from the surrounding hillsides.

The relationship between project-assisted entrepreneurs and workers is similar to the relationship between intermediaries and workers, possibly because all except one of the entrepreneurs were previously intermediaries. Most workers employed by the new entrepreneurs are home-based and may easily switch from one employer to another. However, comparing the entrepreneur's expenditure pattern with that of the intermediary shows the opposite trend. Wages constitute only 8% of the entrepreneur's budget or IDR 17,496/month compared to 38% of the intermediary's (IDR 39,350). In absolute terms, the intermediary is providing more than twice the income to other villagers than the entrepreneur.

Wage rates in the village vary according to quality of work, intricacy of pattern, and size of cloth, but remuneration within categories varies only slightly. Both entrepreneurs and intermediaries try to minimize labour costs by offering loans and fixing wages according to the strength of demand. The difference between expenditures for wages is largely explained by volume: the entrepreneurs are still new and working with rather small quantities of cloth, whereas many of the intermediaries are already established and handle higher volumes. At the same time, large expenditures for raw materials and increased household spending among entrepreneurs suggest that wage rates are not likely to improve even with future increases in productivity.

A marked difference exists between earnings and expenditures in entrepreneur, intermediary, and worker households. The entrepreneur, who invests the greatest amount, has the highest income and, thus, is best able to accumulate capital. For an average investment of IDR 228,700/month, she has IDR 231,300 after expenses including household expenditures. In other words, for slightly more than twice the cost of being an intermediary, the entrepreneur increases her income 4.7 times. Household expenditures nearly double from IDR 34,925 to IDR 75,000. The entrepreneurs' prosperity can be seen in recent improvements to their houses such as installation of louvered glass windows, as well as purchases of additional rice land, kerosene lamps, and vehicles. All of the batik entrepreneurs in Wukirsari (three in

Giriloyo and two in other hamlets) can attribute their success to assistance from the P2WIK-UNDP project in their village.

From the perspective of raising women's incomes and standard of living, the P2WIK-UNDP project has been successful where the kelompok members have been able to overcome marketing problems. The impact on the area as a whole may be somewhat less positive in the long run, however. Women were originally chosen to participate in the project because they were judged likely to succeed in becoming independent producers, i.e., entrepreneurs. Essentially, that limited selection to those women whose households had sufficient resources to invest in raw materials and to allow them to attend training sessions and group meetings. Of the five women who have succeeded in becoming entrepreneurs, two are comparatively large landowners, two have husbands in the civil service, and one has a husband in the military. The other, unofficial, requirement for membership in the kelompok was support of the local administration by participating in village-level government organizations such as the PKK. Village elites such as the women described above form the core of these groups. In practice, assistance from the government through the project has been limited to members of the economic and political elite, even though its stated goal was to improve poor women's incomes.

Although the project has greatly benefited the elite women who have become entrepreneurs, income and expenditure figures from intermediary and worker households indicate that their success has not been shared by others in the village. Project members' ability to do their own dyeing has created occasional employment for dyers and scrapers at IDR 250-600/day but the entrepreneurs' relatives and dependants usually fill these jobs because they are the first to be trained by the entrepreneurs. Two entrepreneurs use labour from outside their own villages. The entrepreneurs do not pay higher wages than the intermediaries. In fact, they pay less and withhold payment more often. As powerful villagers, they successfully use their social and economic position to manipulate their weaker neighbours. The cooperation of entrepreneurs in the village increases workers' indebtedness because the entrepreneurs can afford to grant loans and use them to ensure a steady supply of labour at below-market rates. Unintentionally, therefore, the development project has reinforced existing socioeconomic stratification in the areas, making the poor more dependent on the wealthy, rather than less.

Implications of Occupation Segregation in the Batik Industry

For policymakers concerned with encouraging entrepreneurship among indigenous Indonesians, the failure of a large number of batik enterprises in the face of competition from mass-produced pseudobatik and changes in consumer tastes toward less-expensive textiles and Western styles is particularly troubling because the batik industry is a traditional stronghold of indigenous business interests. As small- and medium-scale batik factories close, however, demand for labour also declines. Since the mid-1950s, more than 100,000 jobs in the industry have disappeared (Joseph 1986:80-81). This trend is not only likely to continue, but the remaining jobs will be less secure because of the influx of new workers displaced from the agricultural sector.

Although both men and women in the industry will be affected, the continued decrease in labour demand will be felt most strongly by poor rural women employed as canting workers because they have fewer alternatives. Whereas men have been able to take advantage of new opportunities created by industrialization and development, women have limited options and tend to move from one area of traditional female employment to another (Manderson 1980:79). Unlike batik entrepreneurs who have capital to invest in other enterprises, female workers in the industry barely earn subsistence wages. Most are landless or near landless and cannot depend on income from agriculture to support their families. Poor men are increasingly finding work outside their villages, whereas poor women remain in the village after marriage, especially after the first child is born. Lack of alternatives is the most common reason why rural women make or trade semifinished batik; therefore, further reduction in the demand for female labour in the batik industry will inflict severe hardship on many poor families. Already among the poorest in rural areas, female-headed households dependent on batik making (30% of the total IDRC sample of batik workers, 40% on Java) will lose their primary source of livelihood.

Women are alleged to be "naturally" suited to making batik tulis. However, this type of work employs skills that are neither highly remunerative nor readily transferable to other jobs. A number of income-generation projects for women, however, encourage home-based batik production to raise living standards of the rural poor. As well as increasing poor women's already heavy burden, these projects often inadvertently undermine their stated goal by supporting enterprises that depend on a continued supply of cheap labour. Batik making in Wukirsari demonstrates that where crafts have been chosen to integrate women into development, planners must consider access to resources, technology, and information in terms of class as well as gender.

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